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ILLUSTRATIONS
OF
NEW SPECIES
OF
EXOTIC BUTTERFLIES.

BY
WILLIAM C. HEWITSON.

SELECTED CHIEFLY FROM THE COLLECTIONS OF
W. WILSON SAUNDERS AND WILLIAM C. HEWITSON.

VOL. IV.

JOHN VAN VOORST, LONDON.

1867—1871.

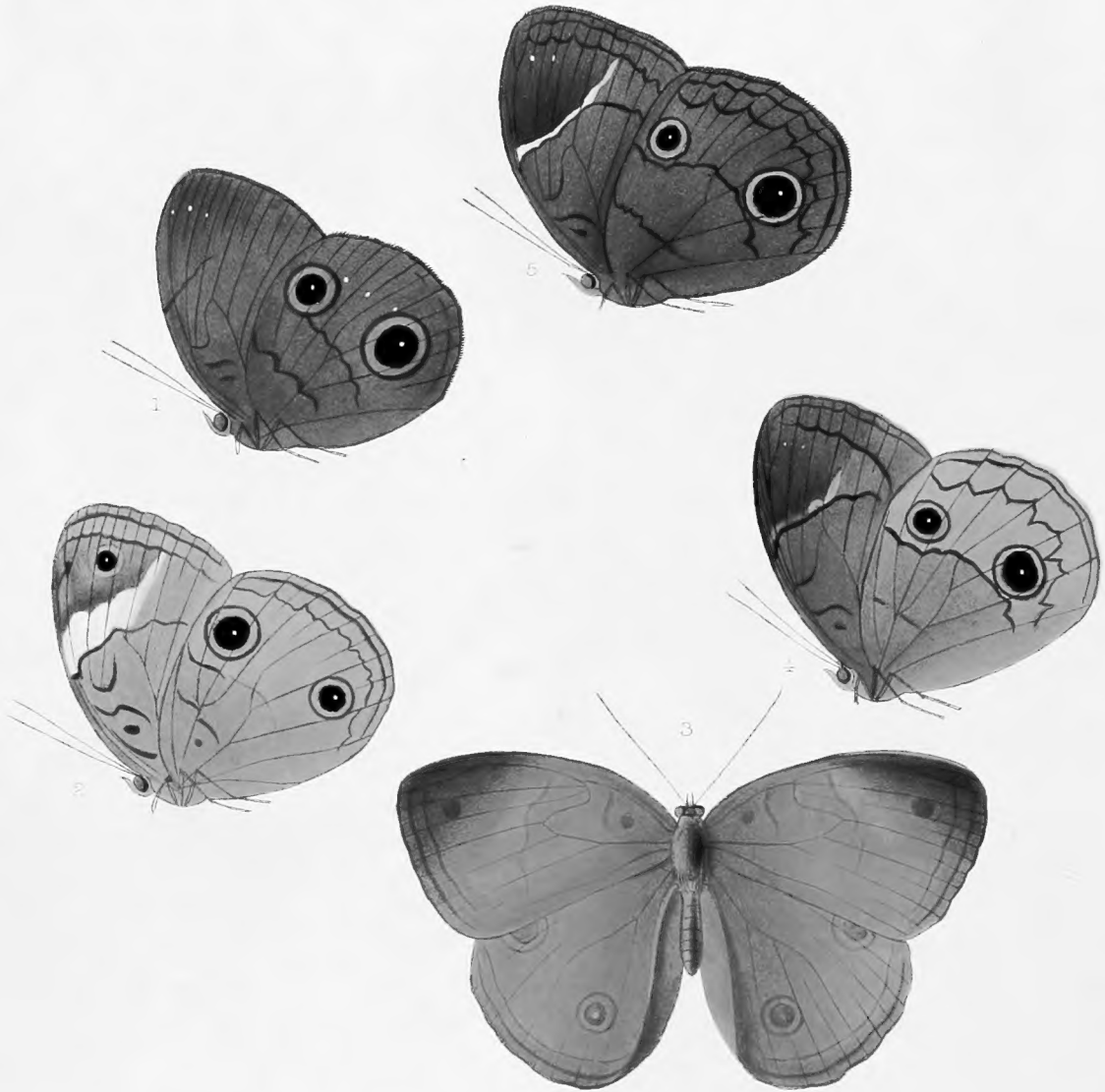
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LONDON

MORPHIDÆ.
CLEROME.



W. C. Hewitson, del. et lith, 1862.

M. & N. Hanhart, Imp.

Pub Jan 1, 1863.

1. CLEROME BESA.
2. 3. CLEROME CHITONE. 4. 5. CLEROME MENADO.

M O R P H I D Æ.

CLEROME.

CLEROME BESA. 1.

UPPERSIDE. Female, rufous or yellow-brown, darker towards the margins.

UNDERSIDE brown. Anterior wing with two indistinct brown lines within the cell, an oblique short line from the middle of the costal margin and three minute white dots near the apex. Posterior wing crossed by two linear bands of brown before the middle; beyond the middle two large black ocelli, each with the pupil white and iris rufous, and between them three minute white dots.

Expan. $2\frac{7}{10}$ in. Hab. Borneo.

In the Collection of W. C. Hewitson.

This species is closely allied to *C. Phaon* of Erichson, but differs from it in wanting most of the transverse linear bands of the underside in having the ocelli of different form and colour, and three minute white dots between them.

CLEROME CHITONE. 2, 3.

UPPERSIDE. Female, rufous-orange: the apex broadly brown with some of the decorations of the underside seen through.

UNDERSIDE paler. Anterior wing with a black spot within the cell inclosed by an irregular band of black: the disco-cellular nervures, a linear transverse band at the middle, and two linear submarginal bands black: an oblique broad white band beyond the middle: an ocellus and minute white spot near the apex. Posterior wing with a spot at the base, a transverse line near it, a short line from the middle of the costal margin (indistinctly traced beyond) and two submarginal lines (the inner line zig-zag) all black; two large black ocelli, each with white pupil and ray of blue dots. the iris yellow margined with black.

Expan. $3\frac{1}{10}$ in. Hab. Celebes.

In the Collections of W. W. Saunders and W. C. Hewitson.

CLEROME MENADO. 4, 5.

UPPERSIDE. Male (fig. 5), orange-brown, slightly darker towards the outer margins.

UNDERSIDE brown. Anterior wing crossed obliquely from the middle of the costal margin by a narrow band of white: a spot and two lines within the cell, the end of the cell, a transverse curved band at the middle touching the white band, two undulated submarginal bands, and the outer margin, black: three minute white dots near the apex. Posterior wing with a spot at the base, two transverse undulated bands before the middle, two submarginal bands (the inner band zig-zag) and the margin, all black; two large black ocelli each with white pupil and ray of lilac dots: the iris yellow, margined with black.

Female differs little from the male, except in colour; it is much paler on the underside; the bands also which cross the anterior wing approximate more closely at the inner margin.

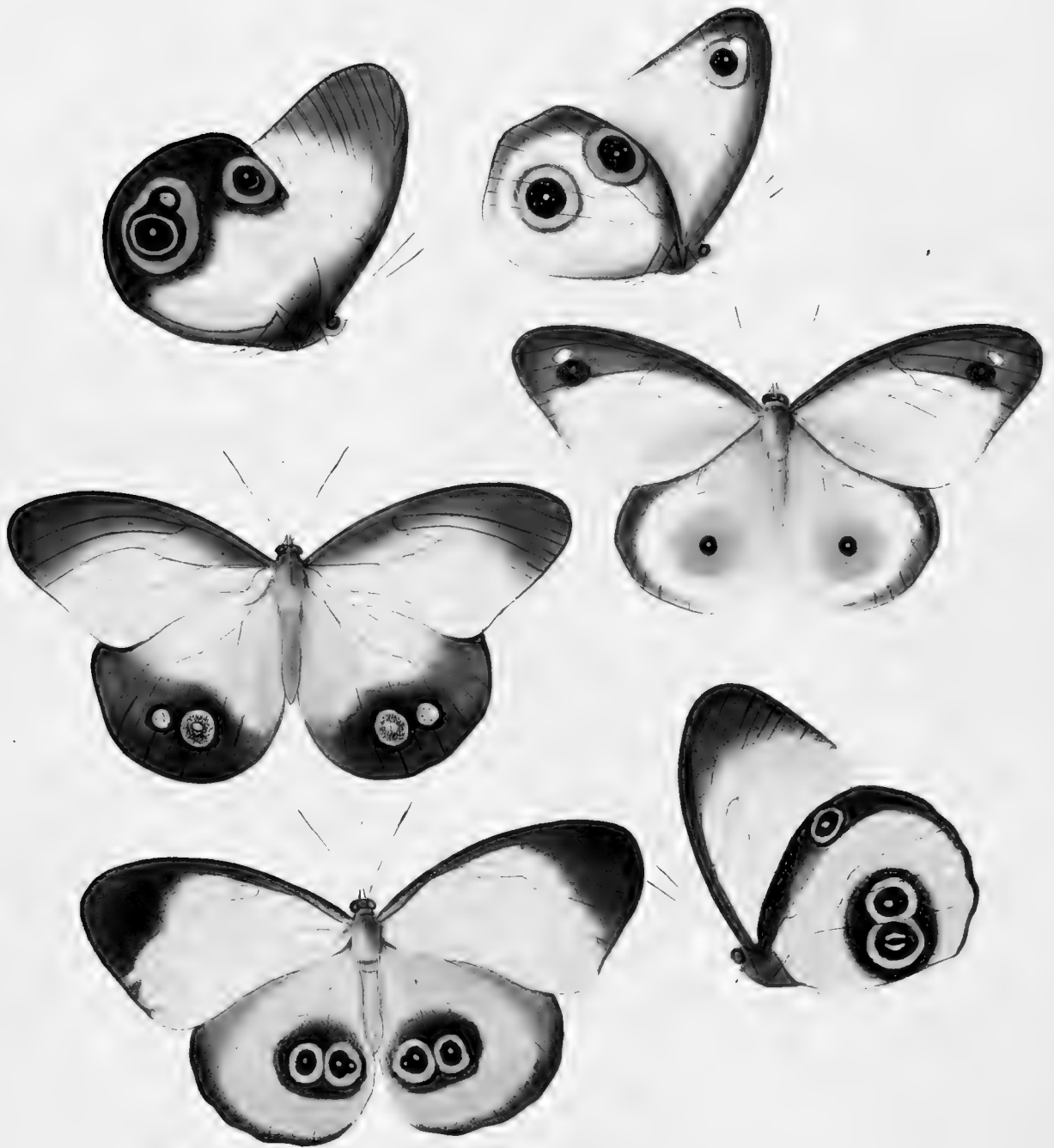
Expan. 3 in. Hab. Menado.

In the Collections of W. W. Saunders and W. C. Hewitson.

Near to *C. Stomphax* of Westwood.

The butterfly, which Mr. Westwood has placed in this genus under the name of *C. Busiris*, has little resemblance to the other species. He has, it is true, put it into a subgenus, and pointed out some of its divergencies, but, besides these, it has others; the eyes are more prominent, and the body much longer. Would it not be better placed with the *Nymphalidæ*, and if not in the genus *Iaera* at no great distance from it?

1. *Graphium agestor* Ag.
 2. *Graphium agestor* Ag.
 3. *Graphium agestor* Ag.



1. *Graphium agestor* Ag.

2.

3.

4. *Graphium agestor* Ag. 5. *Graphium agestor* Ag. 6. *Graphium agestor* Ag.

M O R P H I D Æ.

DRUSILLA & HYANTIS.

DRUSILLA BIOCULATUS. 1, 2.

Morpho bioculatus Guérin, *Voy. Coquille*, Pl. 17. *Hyades Indra* Boisd., *Voy. Astrolabe*, p. 158.

UPPERSIDE. Female, white; anterior wing rufous-white: the costal margin, the apex, and the outer margin to a little beyond the middle (covering one-third of the wing), dark brown. Posterior wing orange-yellow; the costal and outer margins dark brown: a large dark brown circular spot near the middle of the costal margin, inclosing two black ocelli with the pupils and iris light blue; the ocellus nearest the inner margin has a third minute ocellus attached to it and inclosed within the same iris.

UNDERSIDE as above, except that the costal margin of the posterior wing is of a much darker brown and is marked beyond the middle by an ocellus similar to the others, but smaller: that the central spot is much larger, extending to the inner margin, and of a darker brown: that the ocelli are much larger, especially that nearest the inner margin which has absorbed the small ocellus mentioned above and contains two pupils.

Expan. $3\frac{1}{2}$ in. Hab. Waigiou.

In the Collection of A. R. Wallace.

It was not until after the accompanying plate was finished, and I believed that I had figured a new species, when I ascertained that it is identical with the *Morpho bioculatus* of Guérin. It is not, as supposed by Boisduval and Westwood, the female of *Melanitis* (*Dyctis*) *Agondas*, from which it differs in the position of the nervures. It is a *Drusilla*, and was placed in that genus by Dr. Boisduval under the name of *Hyades Indra*. The *Dyctis bioculatus* of the "Genera of Diurnal Lepidoptera," Plate LIV.* is not the *Morpho bioculatus* of Guérin but the true female of *Agondas*; and not being able to discover any resemblance to the butterflies then before me in the figure given of *Dyctis Agondas* in the "Voyage de l'Astrolabe," I figured it and a series of the females in the "Proceedings of the Zoological Society," *Annulosa*, Plate LV., under the name of *Melanitis Melane*. *D. bioculatus*, though agreeing with the other characters of *Drusilla*, differs from all the other species or varieties in the arrangement of the disco-cellular nervures of the anterior wing; in *D. Horsfieldii* the first and second disco-cellular nervures are very short and of equal length, the third very long and curved; in *D. bioculatus* the first disco-cellular nervure is very short, the second very long, and the third short. On examining the numerous examples of *Drusilla* in my collection, I find that there is considerable difference in the length of the second disco-cellular nervure; in *Horsfieldii*, as stated above, the first and second disco-cellulars are of equal length: in all the others the second nervure is three or four times the length of the first.

DRUSILLA DIMONA. 3, 4.

UPPERSIDE. Male, white; anterior wing with the costal margin and apex broadly rufous-brown: posterior wing rufous-white: the outer half dark brown, with two unequal light blue ocelli near the outer margin, each pupilled with light blue, the larger irrorated with black.

UNDERSIDE as above, except that the base of the posterior wing is dark brown: that the large ocellus is all black with an iris of blue: that both of the ocelli are bordered with black, and again encircled by a common band of orange; and that there is a third ocellus near the apex with the blue iris incomplete.

Expan. $3\frac{1}{2}$ in. Hab. Aru.

In the Collections of W. W. Saunders and W. C. Hewitson.

I have elsewhere stated my belief, and I may repeat it here (excepting *D. Horsfieldii* from the list in consequence of its differing in the length of the disco-cellular nervures) that *D. Catops* and *Selene* of Boisduval, *D. Phorcas* and *Milæcha* of Westwood, *D. Myops* and *Macrops* of Felder, and *D. Artemis*, *Anableps*, and *Dioptrica* of Vollenhoven, are only varieties of *Urania*. *D. Dimona* should, very probably, add one more to the number; it differs, however, so much from all on the upperside, that I have preferred for the present to consider it as distinct.

See also

HYANTIS. *Hewitson.*

Body small, quadrate, abdomen slender. Eyes small, smooth. Palpi rather long, compressed, clothed with scales throughout, encircling the eyes. Antennæ rather short, thickened gradually to the point, the articulations numerous and easily seen.

Anterior wing rather large: the costal margin arched, apex rounded, outer margin slightly sinuated at the middle, inner margin rounded, protruded as in *Euploea*; costal nervure swollen at its base, reaching beyond the middle of the wing: subcostal nervure with four branches: two together just before the end of the discoidal cell, the third midway between the end of the cell and the apex of the wing, the fourth at one-third of the distance between the last and the apex; discoidal cell nearly half the length of the wing, closed: upper disco-cellular nervure very short, the second semi-circular arched inwards rather short, the third more than twice the length of the second curved united to the third branch of the median nervure at a distance from its base.

Posterior wing oblong, circular, with large abdominal fold; costal nervure joining the margin considerably beyond the middle: subcostal nervure with its first branch arising near the base of the wing: the discoidal cell short and narrow, closed; the upper disco-cellular nervure long, arising at a short distance below the first branch of the subcostal nervure, at first in a transverse direction, and afterwards passing longitudinally down the wing: the second half its length, joining the third median nervure a little beyond its base.

Fore legs of both sexes short, tibiæ and tarsi of both so densely clothed with hair as to conceal the joints of the tarsi.

Hind legs long, slender, smooth: the femora tibiæ and tarsi of equal length.

HYANTIS HODEVA. 5, 6.

UPPERSIDE. Male, white; both wings with the costal margin and apex broadly brown, the outer margin also brown to beyond its middle; anterior wing rounded and produced at its inner margin as in *Euploea*: near this margin a large oval pale rufous spot: near the apex a small spot of white and a black ocellus with some minute white dots. Posterior wing, with a small black ocellus with white pupil, broadly bordered with yellow, and marked by a very indistinct circle round the ocellus.

UNDERSIDE as above, except that the ocellus at the apex of the anterior wing has the pupil and some smaller dots of white and an iris of yellow: that the ocellus of the posterior wing is larger and has several minute dots of white and the iris bordered with brown: that there is a similar ocellus on the costal margin bipupillated and dotted with white.

Female larger: the wings broader, suffused with darker brown, the nervures dark brown; anterior wing with the centre alone white; posterior wing white only to the middle, tinted with orange-yellow towards the inner margin: the ocellus small, indistinctly pupilled with white; the iris orange-yellow, bordered with brown and encircled above by a pale line; underside it differs only in the broader outer margin of the posterior wing.

Expan. ♂ $3\frac{2}{10}$ ♀ $\frac{6}{10}$. Hab. Waigiou.

In the Collection of A. R. Wallace.

This is a species of singular interest, from the remarkable resemblance it bears to the *Drusillas*, differing at the same time from them widely in the arrangement of the branches from the subcostal nervure of the anterior wing, in the form of that wing with its projected inner margin, and in the closed discoidal cell of the posterior wing. It is unique in the collection of Mr. Wallace.

THE BUTTERFLY
MANTLE



THE BUTTERFLY

THE BUTTERFLY

M O R P H I D Æ.

DASYOPHTHALMA AND THAUMANTIS.

DASYOPHTHALMA DELANIRA.

UPPERSIDE. Female, dark brown; anterior wing crossed near, and parallel to, the outer margin by a broad orange band, sinuated on both sides; a small spot near the apex, and a narrow macular band from the middle of the inner border of the broad band to the middle of the costal margin, both of the same colour: a spot of blue near the inner margin between the median nervure and the band; posterior wing crossed near the middle by a straight band of white, tinted with yellow near the anal angle, glossed with blue near the costal margin from the base to the white band.

UNDERSIDE undulated throughout with dark brown; the band of the anterior wing paler than above, the band between it and the costal margin white; a small black ocellus with two pupils of white; the band of the posterior wing slightly rufous; two large brick-red ocelli with lunular white pupils.

Expan. $4\frac{1}{10}$ in. Hab. Brazil.

In the Collection of W. C. Hewitson.

The underside of this species does not differ at all from that of *D. Rusina*.

THAUMANTIS CAMBODIA. 2.

UPPERSIDE. Female, brown: the basal half of both wings green-brown; the outer half lilac-white with a white spot near the costal margin beyond its middle; both wings crossed by a band of triangular palm-like black spots: the outer margin broadly brown, deeply sinuated at the nervures, and traversed by a deeply undulated line of lilac, forming conical spots indented at the apex.

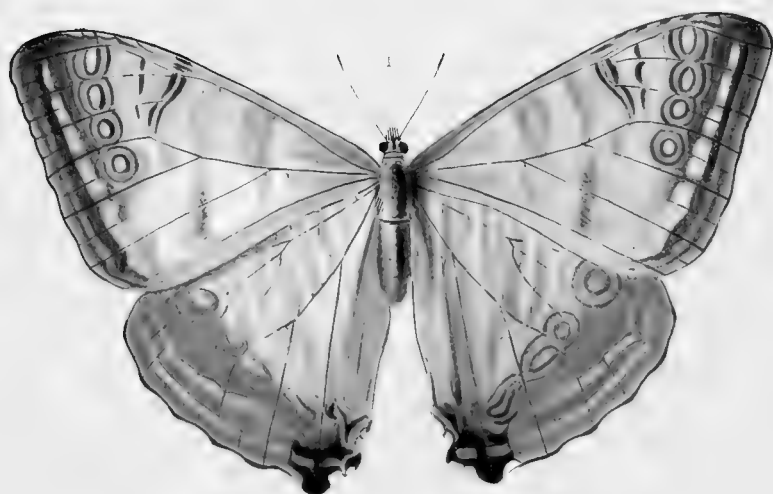
UNDERSIDE green-brown to the middle, red-brown beyond, tinted with lilac on the posterior wing; both wings crossed near the base by an undulating band of rufous-brown: at the middle by a narrow band of white bordered inwardly with rufous-brown: and beyond the middle by a deeply undulating orange-brown band, followed near the outer margin by a band of indistinct brown spots: anterior wing with a short curved line at the base and a band at the end of the cell, rufous; two obscure rufous-orange ocelli; posterior wing with a small rufous spot before the middle, and three equidistant rufous-orange ocelli with white pupils and black iris.

Expan. $5\frac{4}{10}$ in. Hab. Cambodia.

In the Collections of W. W. Saunders and W. C. Hewitson.

This species, though much resembling *T. Camadeva* of Westwood, is very distinct. The colour of the basal half of the wings is altogether different; the anterior wing is without ocelli, the spots beyond the middle of the wing are of another form; the posterior wing of *Camadeva* is without them. On the underside they are quite unlike in colour: Cambodia has only two ocelli on the anterior wing, and three on the posterior wing, *Camadeva* has five on each; the undulating lines which follow these ocelli have but little resemblance.

MORPHIDAE
MORPH.



W.C. Hewatson del et lith. 1896

Printed by Hulse and Wainwright

MORPHIDAE SUBGENA MORPHIDAE

MORPHIDAE SUBGENA MORPHIDAE

M O R P H I D Æ.

MORPHO. I.

MORPHO SULKOWSKYI. 1.

M. Sulkowskyi. Kollar, *Beitrage zum Ins. N. Granada.* *M. Ganymede.*
West. Gen. Diur. Lep., p. 33.

UPPERSIDE. Male pearly glittering blue, changing (as the light changes) to rich cream-colour. Spotless, except where the marks of the underside are seen through. Anterior wing brown at the apex and outer margin. Posterior wing with a narrow outer margin of black. A large brown spot at the anal angle marked with three spots of scarlet.

UNDERSIDE rich cream-colour. Both wings with two short bands across the cell; a third at the end of the cell, and a fourth just beyond it, and below them between the nervures a band of spots (in the form of inverted cones on the posterior wing) followed by a chain of eyes (four on the anterior, five on the posterior wing) with a broad faint band on each side of them, and by two other bands near to the outer margin. Posterior wing with the anal spot as above, but of a light purple marked with spots of scarlet and traversed by a black line.

The female differs from the male on the upperside, chiefly in having the bands of the underside much more distinctly seen through, in having the outer margin of the posterior wing broadly rufous. On the underside there is no difference, except that all the bands and eyes are very much more distinct.

Expan. 4 in. Hab. New Granada.

In the Collections of W. W. Saunders and W. C. Hewitson.

This beautiful species was first published to the world in our Great Exhibition of 1851; the plate in which it was represented having been sent there as an example of chromo-lithography. We are indebted to Mr. Stevens, of Bogota, for the specimens of this and many more species which adorn our cabinets, and I grieve to say that his death has deprived us of a most zealous entomological friend, and put an end to many bright hopes for the future.

MORPHO CYPRIS. 2.

UPPERSIDE. Male brilliant metallic blue. Both wings crossed by two continuous macular bands of light yellow or pink, changing as the light changes, with two spots of the same colour between the bands near the costal margin.

UNDERSIDE brown. Three spots of white within the cell, the two bands as above, but less distinct, and between them, on the anterior wing, three eyes placed in a line; on the posterior wing, six placed irregularly, one between the sub-costal nervules (sometimes a second, but indistinct), two between the median nervules, and three together near the anal angle.

Female orange yellow, the outer margins broadly brown. Both wings with a row of orange spots parallel to the outer margin, and a double row of lunules of the same colour on the margin. Anterior wing with the cell brown, marked by a spot of orange. Two spots also orange between the transverse bands near the costal margin.

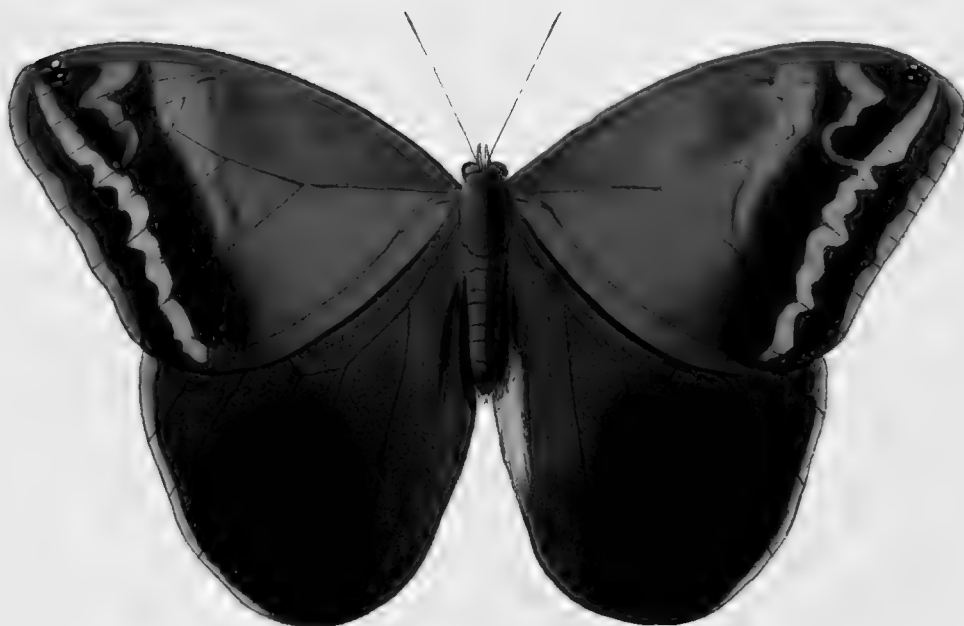
Expan. $5\frac{3}{10}$ to $5\frac{8}{10}$ in. Hab. New Granada.

In the Collections of W. W. Saunders and W. C. Hewitson.

The female, which has been presented to me with great liberality by Mr. Mark, the British Consul at Bogota, is, he tells me, the only one which has been seen there by the natives. Although the male has been known for many years, no one has ever been rash enough to attempt to figure it. Mr. Westwood, to whose lot it has fallen to describe it under the MS. name given it by Dr. Boisduval, has well remarked that it is "omnium Papilionarum nitidissimus."

MORPHOLOGY

PAVONIA



W. J. Hewlett and J. A. Little, et al.

M & N Hanhart imj

FAYUNIA STELLATA


$$E_{\text{eff}} = E_0 + \frac{1}{2} \frac{E_0^2}{E_0 + E_0^2} \left(\frac{E_0}{E_0 + E_0^2} \right)^2 \left(\frac{E_0}{E_0 + E_0^2} \right)^2$$
$$\frac{\partial \mathcal{L}}{\partial \mathbf{C}_k} = \mathbf{C}_k^T \mathbf{C}_k - \mathbf{I} \quad \text{and} \quad \frac{\partial \mathcal{L}}{\partial \mathbf{C}_k} = \mathbf{C}_k^T \mathbf{C}_k - \mathbf{I}$$

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Lichtenthaler and Whistler (1973).

M O R P H I D Æ.

PAVONIA I.

PAVONIA SELEUCIDA.

UPPERSIDE. Male dark brown. Anterior wing with more than the basal half rufous; crossed by a submarginal undulated band of rufous orange: the outer margin and a curved band near the apex which encloses two black spots rufous: two minute subapical white spots. Posterior wing tinted with purple at the middle, the outer margin rufous.

UNDERSIDE rufous brown. Anterior wing marked in the cell by numerous zig-zag black lines: crossed at the middle and end of the cell by rufous-white bands and beyond the cell by a black linear band followed on the costal margin by a triangular space undulated with white and below it by a band of white succeeded by a broad brown band undulated with dark brown and marked near the costal margin by two black spots crowned with white by a third black spot and by two blind ocelli and bordered outwardly by an undulated band of white: the outer margin rufous traversed by an undulated linear black band, bordered outwardly with paler colour. Posterior wing undulated throughout with dark brown with a broad central dark brown band bordered with white and marked by some irregular black lines and enclosing near the costal margin a large dark brown ocellus with pale rufous border and marked by a lunular white spot and near the anal angle by a large trifold brown spot marked by two ocelli (one small) each marked by white.

Exp. 5 inch. Hab. Bolivia. (Buckley.)

In the Collection of W. C. Hewitson.

A most interesting species connecting the two groups of the genus, resembling *P. Eurylochus* in its form and colouring of the upperside, and *P. Automedon* and *Æsacus* on the underside.

M O R P H I D Æ.

PAVONIA II.

PAVONIA ZOLVIZORA.

UPPERSIDE. Male dark rufous-brown, anterior wing tinted with purple at the middle, crossed towards the outer margin by a series of six irregular orange spots: marked near the apex by two small spots of white and a lunular rufous spot, the outer margin rufous. Posterior wing with the peculiar oval pale yellow spot near the anal angle, the outer margin broadly rufous sinuated on its inner border.

UNDERSIDE rufous-brown. Anterior wing traversed throughout the cell by lines of black; crossed at its middle by a band of white also marked by lines of black and at the end of the cell, chiefly outside of it, by a band of white: two small white spots between these bands; crossed from the costal to the inner margin by a band of black, and beyond it on the costal margin by a triangular space which is undulated with white: by a band of white followed by a broad band undulate with dark brown and marked near the costal margin by three black spots crowned with white and by two oval eye-like spots marked with minute white dots: the outer margin broadly rufous traversed by two undulate black lines. Posterior wing undulate with dark brown: crossed before the middle by a broad dark brown band bordered on both sides with white and marked by two eye-like spots, one at the costal margin dark brown with a lunular white spot, the other towards the anal angle binocular, black irrorate with white and bordered above with yellow.

Exp. 5 inch. Hab. Bolivia. (Buckley.)

In the Collection of W. C. Hewitson.

THE GENUS
OPSIPHANES



W. H. Edwards del et lith Feb'y 1st 1872

M & N Hanhart imp

1. PSIPHANES ORGETORIX

3. 4. OPSIPHANES ZELOTES

N Y M P H A L I D Æ.

OPSIPHANES.

OPSIPHANES ORGETORIX. 1, 2.

Opsiphanes Orgetorix. Hewitson. *Entom. Mon. Mag.* Vol. VI. p. 177 (1870).

UPPERSIDE. Male dark rufous-brown. Anterior wing crossed from the costal margin beyond its middle to the anal angle by a curved rufous band, broadest where it crosses the discoidal nervures: three subapical white spots. Posterior wing with a tuft of hair having its origin in and near the end of the cell: the outer margin broadly rufous.

UNDERSIDE rufous beautifully undulated and spotted with dark brown and white. Anterior wing with a brown spot near the base, a quadrifid spot in the cell bordered with black, a broad transverse dark brown band before the middle: the outer margin rufous bordered inwardly with ochreous yellow in arches and traversed by two linear arched bands of black: a subapical oval ocellus with rufous border and for pupil a line of white: some apical white spots. Posterior wing with two large rufous ocelli bordered with black: one touching the costal margin at its middle marked by a semicircular white line: the other towards the anal angle marked by a round black spot irrorated with green crowned by a line of white: the outer margin broadly rufous with its inner border zig-zag.

Female like the male except that it is larger, that the anterior wing is crossed near the middle by a nearly straight band of lilac-grey. Posterior wing with the outer margin broadly orange clouded with brown.

Exp. ♂ $4\frac{2}{10}$ ♀ $4\frac{6}{10}$ inch. Hab. Nicaragua. (Chontales.)

In the Collections of Thomas Belt and W. C. Hewitson.

I am indebted to Mr. Belt for this very interesting addition to my collection. Whilst the male on the upperside scarcely differs from *Berecynthus* and *Soranus*, the female is altogether different from those of any other species which we know.

OPSIPHANES ZELOTES. 3, 4.

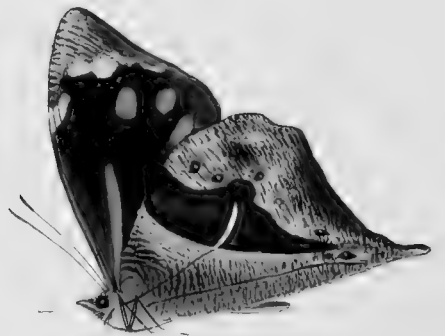
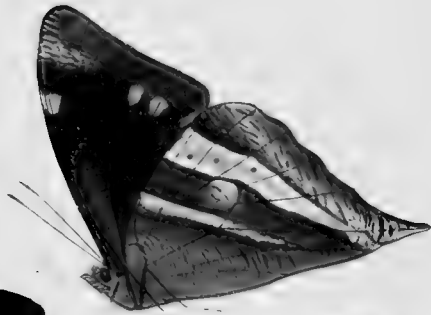
UPPERSIDE. Male, dark rufous-brown. Anterior wing crossed beyond the middle by a rufous curved band from the first disco-cellular nervure to the first branch of the median nervure: three small white subapical spots. Posterior wing with two tufts of hair one having its origin within the cell the other on the abdominal fold.

UNDERSIDE rufous-brown. Anterior wing with some zig-zag black lines across the cell, some black lines also below the cell: the apex grey with the three white spots as above and undulated with white: a subapical oval black spot with rufous border. Posterior wing undulated with white at the base: crossed in and above the cell by black linear bands: undulated throughout below these to the outer margin by dark brown varied here and there by white, a large ocellus half brown half rufous and white and bordered with black: an oval black spot towards the anal angle irrorated with green crowned with white and with a rufous border.

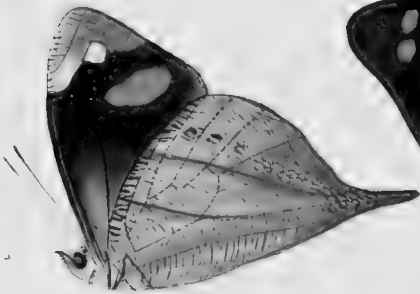
Exp. $3\frac{9}{16}$ inch. Hab. New Granada. (Villagomes.)

In the Collection of W. C. Hewitson.

THE BUTTERFLY



151



SATYRIDÆ.

CORADES.

CORADES CHELONIS. 1, 2.

UPPERSIDE. Male. Anterior wing dark brown, paler at the base, with three rufous spots towards the apex and outer margin. Posterior wing tailed, rufous-brown; the base, inner margin, and tail clouded with darker brown: the apex dark brown.

UNDERSIDE. Anterior wing as above, except that the apex is silvery-grey undulated with brown, and that the two spots near it are white. Posterior wing silver-grey, undulated throughout with rufous-brown; crossed obliquely by two parallel lines of rufous-brown, and nearer the outer margin by a band of indistinct spots.

Expan. $2\frac{8}{10}$ in. Hab. New Granada.

In the Collections of W. W. Saunders and W. C. Hewitson.

If *Corades Iduna* and *C. Enyo* are good species, this must be considered as a third. It is not easy to say to which of the two it bears the closest resemblance; the three, be they species or only varieties, are very nearly allied.

CORADES CHIRONE. 3.

UPPERSIDE. Male, uniform dark brown.

UNDERSIDE. Anterior wing dark brown, with three pale-rufous spots; one spot on the costal margin beyond the middle, two nearly together towards the anal angle; the apex rufous-brown, with a large ill-defined spot of silvery-white undulations. Posterior wing rufous-brown, undulated with silvery-white chiefly near the outer margin; crossed before the middle by an indistinct short silvery band, and again beyond the middle by a broad band of silver-white tinted with yellow, marked with two or three minute black spots; between the bands (within the cell) an ill-defined round spot of white and silver undulations; the tail undulated with dark brown.

Expan. $2\frac{9}{10}$ in. Hab. New Granada.

In the Collection of W. C. Hewitson.

CORADES CISTENE. 4, 5.

UPPERSIDE. Male, dark rufous-brown. Anterior wing crossed near the apex and outer margin by an irregular band of six rufous spots. Posterior wing rufous-brown, dark brown at the apex, where it is marked by two or three small rufous spots.

UNDERSIDE. Anterior wing as above, except that there is an oblong spot within the cell, that the apex is rufous-brown undulated with silver, and that the three spots of the band near it are white and indistinct. Posterior wing undulated with brown, its centre silver-white crossed by a broad oblique band (of unusual form) of dark rufous-brown, intersected at the median nervule by a line of white, and followed by a band of six black spots, the anal spot, which is largest, dotted with white: the inner and outer margins broadly brown.

Var. (Figs. 4, 5.) With all the rufous spots larger than usual, the three spots of the posterior wing forming a curved band.

This species varies considerably on the underside of the posterior wing. In some examples the whole of the broad band, except its margins, is like the rest of the wing, of a silver-white.

Females are very scarce in the genus *Corades*, as far as it is represented in our collections. My own collection is without one, and in a rather large series in the British Museum, there are only two.

PRONOPHILA



W. H. Cresson, del. et lig. 1857

Printed by Hullmandel & Walton

1. PRONOPHILA ZAPATOZA.
 2. PRONOPHILA ZAPATOZA. 3. PRONOPHILA ZAPATOZA. 4. PRONOPHILA ZAPATOZA.
 5. PRONOPHILA PROPYLEA. 6. PRONOPHILA PROPYLEA.

SATYRIDÆ.

PRONOPHILA.

PRONOPHILA ZAPATOZA. 1, 2.

P. Zapatoza. Westwood, *Gen. Diur. Lep.* p. 358.

UPPERSIDE rufous; the outer margins black; broad on the anterior wing, where it is marked by a curved band across the apex, and two spots between it and the anal angle, lighter than the rest of the wing. Posterior wing with a submarginal row of round black spots.

UNDERSIDE. Anterior wing as above; the apex variegated with grey. Posterior wing grey, with a short band from the costal margin midway to the middle of the wing, and a broad space at the middle of the outer margin (which is dentated and produced into a short tail) red-brown; a row of black spots and, just beyond them, a row of irregular white or yellow spots, both parallel to the outer margin.

Expan. $2\frac{3}{20}$ in. Hab. Venezuela.

In the Collections of W. W. Saunders and W. C. Hewitson.

PRONOPHILA PROSYMNA. 3, 4.

UPPERSIDE red-brown, clouded. Anterior wing with a broad transverse irregular band of white beyond the middle; the apex and outer margin broadly black, with two rufous spots near the anal angle. Posterior wing lighter beyond the middle, with a row of round black spots and a submarginal zigzag band of black.

UNDERSIDE. Anterior wing as above, with the apex grey. Posterior wing grey, undulated with brown; a broad band from the costal margin midway to the middle of the wing and the outer margin (except the apex) red-brown; a row of black spots (the three nearest the anal angle marked with yellow) parallel to the outer margin.

Expan. $2\frac{1}{2}$ in. Hab. New Granada.

In the Collections of W. W. Saunders and W. C. Hewitson.

PRONOPHILA PROPYLEA. 5, 6.

UPPERSIDE brown. Anterior wing falcated. Posterior wing dentated, slightly tailed. The base red-brown; the outer margin and two rows of large spots parallel to it rufous.

UNDERSIDE red-brown. Anterior wing with the apex silvery grey; three large rufous spots near the outer margin divided by the median nervules. Posterior wing red-brown, slightly grey from the base to beyond the middle, except where crossed by an angular broad band; a row of indistinct black spots parallel to the outer margin, followed closely by a row of four yellow spots, two (triangular) midway on the wing, two (minute) near the anal angle.

Expan. 3 in. Hab. New Granada.

In the Collection of W. C. Hewitson.

SATYRIDÆ.
PRONOPHILA II



W. C. Hewitson del et lith 1859

Printed by Hullmandel & Walton

7 8 9 PRONOPHILA IRIDIFERA
10 11 PRONOPHILA PRONAX 12 PRONOPHILA IRIDIFERA

S A T Y R I D Æ.

PRONOPHILA. II.

PRONOPHILA PRÆNESTE. 7, 8, 9.

UPPERSIDE. Male (fig. 8) from the base to the middle rufous, from the middle to the outer margin dark brown, marked with several rufous spots. On the anterior wing with a transverse band of six spots. On the posterior wing with several spots irregular in form and position. Anterior wing with a bifid rufous spot on the costal margin beyond the middle. Posterior wing tailed.

UNDERSIDE. Anterior wing as above but lighter, except that it has a spot of grey on the costal margin at the apex. Posterior wing grey, undulated with rufous lines. A broad band from the middle of the costal margin to the middle of the wing; the space between the third median and discoidal nervures and the outer margin from its middle to the anal angle, red-brown. A transverse band of rufous spots beyond the middle, and a row of minute white spots not far from the outer margin.

Female (figs. 7 and 9) dark brown above. Anterior wing crossed by two rows of small obscure rufous spots towards the outer margin. Posterior wing from the base to the middle (except the inner margin, which is light brown,) lilac-white, the rest as in the male. Underside as in the male (but much more beautiful), except that the anterior wing has a row of four large conical spots, each marked with a black spot.

Expan. ♂ $2\frac{9}{10}$, ♀ $2\frac{2}{10}$ in. Hab. New Granada.

In the Collections of W. W. Saunders and W. C. Hewitson.

St.

PRONOPHILA PRONAX. 10, 11.

UPPERSIDE. Male dark brown. Both wings crossed, beyond the middle, by a broad irregular rufous band touching the outer margin of the posterior wing near the anal angle; marked on the anterior wing with three or four black spots; on the posterior wing with three towards the anal angle.

UNDERSIDE lighter, the transverse band narrow and nearly white near the costal margin of the anterior wing; a small white spot between it and the apex; the black spot nearest the apex dotted with white. Posterior wing rufous, the nervures black. Beyond the middle a row of oblong yellow-white bifid spots, and four light yellow spots near the outer margin from its middle to the anal angle. The black spots smaller than above, and dotted with white.

Expan. $2\frac{1}{2}$ in. Hab. Upper Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

PRONOPHILA PUERTA. 12.

P. Puerta, Westwood in Gen. Diur. Lep., Page 358.

UPPERSIDE. Male dark brown. Both wings crossed beyond the middle from near the costal margin to the anal angle, by a broad irregular rufous band, marked on the anterior wing with four black spots, on the posterior wing with seven.

UNDERSIDE rufous-brown. Anterior wing with a triangular white spot on the costal margin beyond the middle, a spot of yellow near the apex, and between these spots a third spot of white. The black spot nearest the apex dotted with white. Posterior wing crossed transversely before the middle by a narrow band of yellow-white, beyond the middle by a second band of the same colour, followed by seven black spots, each dotted with white, some of them bordered with yellow. Below these several triangular white spots, those nearest the costal margin silvery.

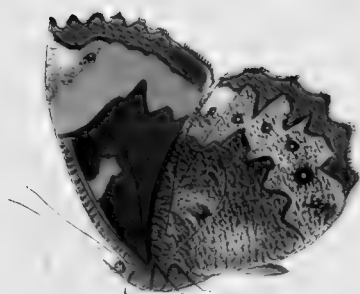
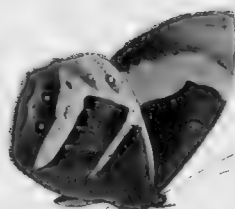
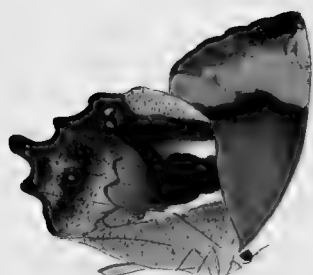
Expan $2\frac{1}{2}$ in. Hab. Venezuela.

In the Collections of W. W. Saunders and W. C. Hewitson.

I have figured this species already described by Mr. Westwood, to show the very interesting proximity which it and *P. Pronax* bear to each other. They scarcely differ on the upperside.

PRONOPHILIDÆ

PRONOPHILA III



1. Pronophila phalaecia

2. Pronophila phalaecia

3. Pronophila phalaecia

4. Pronophila phalaecia

5. Pronophila phalaecia

6. Pronophila phalaecia

SATYRIDÆ.

PRONOPHILA. III.

PRONOPHILA PHALAESIA. 13, 14.

Pronophila Prosymna ♂ Hewitson, *Trans. Ent. Soc. 3rd Series, Vol. I. Pl. 5*,
Figs. 35, 36, p. 15.

UPPERSIDE. Male, dark brown, with the base broadly rufous. Anterior wing crossed near and parallel to the outer margin by a broad band of carmine tinted with orange near the costal margin. Posterior wing with three carmine spots near its apex.

UNDERSIDE. Anterior wing as above, except that it is paler, and has a triangular lilac-grey spot near the apex. Posterior wing lilac-grey, rufous near the base; crossed at the middle by a broad triangular band of dark rufous-brown: the outer margin (except the apex and a spot near the anal angle) broadly rufous-brown, marked by four or more spots (three of which are larger than the rest) of pale yellow.

Exp. $2\frac{11}{20}$ inch. Hab. Ecuador.

In the Collection of W. C. Hewitson.

I am very glad to be able at the same time to figure it, species from a fresh specimen and to correct an error. When I published the paper on *Pronophila*, I came too hastily to the conclusion, misled by the close resemblance of the undersides, that this was the male of *P. Prosymna* of the *Exotic Butterflies*, Vol. 11, Pl. 40, f. 3, 4. I now find that my examples of the species there figured are all males, and that throughout my collection of the genus, females are very scarce. I find also, that the butterflies which were figured by me as the sexes of *P. Praeneste* are all males, and I am thankful to Mr. Butler for pointing out my error. I have placed them here as I think they ought to stand. I shall for the future trust less to the eye, and more to the microscope.

PRONOPHILA PHANARAEA. 15.

UPPERSIDE, uniform dark brown: the fringe spotted with white.

UNDERSIDE. Anterior wing dark brown with two rufous spots, one within the cell, the other beyond the middle: the apex and outer margin undulated with grey, crossed by a band of four minute white spots. Posterior wing dark brown, undulated with rufous-brown to the middle: marked beyond the middle by rufous-brown spots undulated with dark brown. A silvery-white spot between the first and second median nervules and near the outer margin.

Exp. $2\frac{7}{10}$ inch. Hab. Ecuador.

In the Collection of W. C. Hewitson.

Much like *P. Panyasis*, of which it is probably the female.

Figure 15, 16.

PRONOPHILA PHILOTERA. 16, 17.

UPPERSIDE. Male, dark rufous-brown. Both wings crossed beyond the middle by a broad band of orange, angular on the posterior wing.

UNDERSIDE. Anterior wing as above, except that there is a small rufous spot within the cell: and that the apex is broadly ochreous-yellow. Posterior wing rufous-brown, with the costal margin (narrow at the base, broad at the apex), a narrow transverse band from it before the middle, a broad band (undulated with rufous-brown) beyond the middle, and a narrow short submarginal band and some of the nervures, all pale dull yellow: a submarginal band of five white spots.

Exp. $2\frac{1}{10}$ inch.

In the Collection of W. C. Hewitson.

PRONOPHILA PHOENICUSA. 18, 19.

UPPERSIDE. Female, dark brown. Anterior wing dentated: crossed beyond the middle by a broad curved band of rufous-orange: an indistinct rufous spot within the cell: slightly tinted with grey near the outer margin. Posterior wing with two rufous spots near the apex, the lower spot indistinct: the apex grey.

UNDERSIDE. Anterior wing as above, except that the spot in the cell is more distinct: that there is a triangular spot of grey near the apex, marked by a minute white spot bordered with black: and that the outer margin is undulated with rufous-brown, traversed by a dark brown band. Posterior wing undulated throughout with rufous and dark brown and grey: crossed near the outer margin by a broad band of paler colour, bordered on both sides with zigzag dark brown and traversed by a band of six minute white dots surrounded with black.

Exp. $2\frac{7}{10}$ inch. Hab. Ecuador.

In the Collection of W. C. Hewitson.

PRONOPHILA CIRTA.

Lasiophila Cirta. Felder, *Wien. Ent. Monats. III. Pl. 6.* *Pronophila Præneste* ♀ Hewitson, *Exot. But. Vol. II. Pl. 41, f. 7, 9.*

PRONOPHILA CIRCE.

Lasiophila Circe. Felder, *Wien. Ent. Monats. III. p. 326.* *Pronophila Præneste* ♂ Hewitson, *Exot. But. Vol. II. Pl. 41, f. 8.*

I have a variety of this species in which the rufous spots of the anterior wing have their centre brown as in *P. Cirta*.

SATYRIDAE.

PRONIPHILA



1875. 1876. 1877.

1878. 1879. 1880.

PRONIPHILA PATRIBA

PRONIPHILA PATRIBA

PRONIPHILA PATRIBA

PRONIPHILA PATRIBA

PRONIPHILA PATRIBA

PRONIPHILA PATRIBA

PRONIPHILA PATRIBA

S A T Y R I D Æ.

PRONOPHILA. IV.

PRONOPHILA PATROBAS. 20.

Pronophila Patrobas, Hewitson *Trans. Ent. Soc. 3rd Series, Vol. I. Pl. 6. Figs.*
40, 41.

I have figured this species again to show its beautiful colours.

PRONOPHILA PHYLLALIA. 21, 22.

UPPERSIDE, dark brown, with the anal angle of the posterior wing rufous marked by two minute black spots with white pupils.

UNDERSIDE, brown. Both wings crossed before the middle by a short brown band : both crossed beyond the middle by a band, dark brown on the anterior wing, rufous on the posterior wing : both with a rufous band on the outer margin bordered on both sides with brown. Anterior wing with a submarginal zigzag brown line. Posterior wing with a large triangular yellow spot within the second transverse band : a band of five small black ocelli with white pupils and rufous iris : a submarginal rufous band bordered on both sides with brown and again with grey.

Exp. $1\frac{1}{2}$ inch. Hab. Ecuador.

In the Collection of W. C. Hewitson.

The Felders have described several species nearly allied to this. I have felt some doubt whether or not it would have been better placed in the genus *Lymanopoda*.

PRONOPHILA COCYTIA.

Pronophila Cocytia, Felder *Reise der Novara. Heft. III. p. 468. P. Phaesana*,
Hewitson. *Fig. 23.*

UPPERSIDE, uniform dark brown.

UNDERSIDE, rufous brown. Anterior wing with a lunular grey spot beyond the end of the cell. Posterior wing with a minute spot at the middle of the costal margin and a central band of pale yellow beyond the middle, followed by four oval black spots and a broad band of grey zigzag on its outer border.

Exp. $1\frac{9}{10}$ inch. Hab. New Granada.

In the Collections of W. W. Saunders and W. C. Hewitson.

PRONOPHILA PEDACIA. 24.

UPPERSIDE, rufous-brown, the fringe of the anterior wing spotted with white.

UNDERSIDE, rufous-brown. Anterior wing irrorated with grey at the apex and costal margin. Posterior wing clouded throughout with different shades of brown, irrorated with white near and upon the margins, and crossed at the middle by a band of silvery white, broad on the costal margin, narrow between the first median and discoidal nervules, and connected by two minute spots with a bifid spot at the middle of the costal nervure.

Exp. $1\frac{9}{10}$ inch. Hab. Ecuador.

In the Collections of W. W. Saunders and W. C. Hewitson.

Although nearly allied to *P. Prytanis* and more so still to *P. Piletha*, I believe it to be quite distinct.

PRONOPHILA PERITA. 25.

UPPERSIDE, uniform dark brown, with the fringe of the anterior wing spotted with white.

UNDERSIDE. Anterior wing rufous-brown: the costal margin, apex, and outer margin variegated with grey: towards the outer margin a straight band of four minute white spots. Posterior wing purple brown irrorated with white; crossed beyond the middle by a broad rufous-grey band divided by the nervules into five conical spots, each marked by a minute white spot bordered with brown.

Exp. 2 inch. Hab. Ecuador.

In the Collection of W. C. Hewitson.

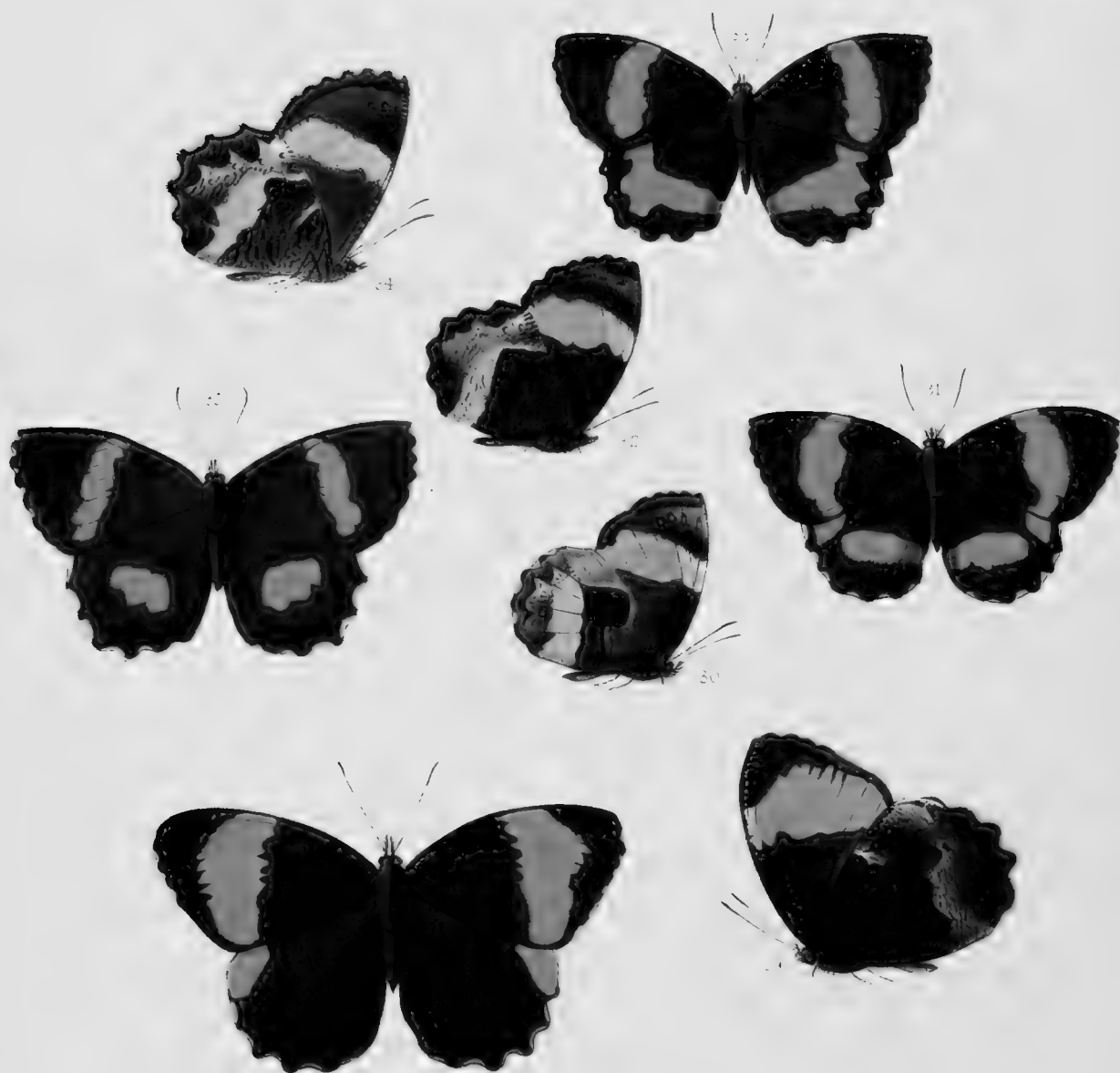
PRONOPHILA PHAEA. 26.

Pronophila Phaea, Var. 2, *Hewitson Trans. Ent. Soc. 3rd Series, Vol. I. p. 3.*

PRONOPHILA PANEIS. VAR. 27.

Pronophila Panais, *Hewitson Trans. Ent. Soc. 3rd Series, Vol. I. Pl. 4. Figs. 26, 27.*

PRONOPHILA



M. & H. Hart, del.

23 PRONOPHILA TARTARE
24 PRONOPHILA ALBICOMA

25 PRONOPHILA PELINNA
26 PRONOPHILA PHAEDRA

SATYRIDÆ.

PRONOPHILA V.

PRONOPHILA PRAXITHEA. 28, 29.

Pronophila Praxithea, Hewitson. *Trans. Ent. Soc.* p. 157, 1870.

UPPERSIDE. Male, dark brown. Outer margin dentate, slightly on the anterior wing, strongly on the posterior wing. Anterior wing crossed from beyond the middle of the costal margin to the anal angle by a very broad band of orange, widest at the middle, slightly dentate on both sides. Posterior wing with an orange spot at the apex.

UNDERSIDE as above, except that the anterior wing has the costal margin marked with lines of white; that it is undulated near the apex with lilac, and marked with three minute white spots: that the posterior wing is undulated near the costal margin from its middle to the apex with rufous-brown and lilac-white, and marked with three minute white spots; that it is crossed beyond the middle by an irregular band undulated with brown and white, and that it is slightly and indistinctly undulated between this band and the outer margin, and near the inner margin, with paler colour.

Exp. $2\frac{1}{2}$ inch. Hab. Ecuador. (St. Rosario, Villagomes.)

In the Collection of W. C. Hewitson.

PRONOPHILA ALUSANA. 30, 31.

P. Alusana, Hewitson. *Equatorial Lepidoptera*, p. 34.

UPPERSIDE. Male, dark brown, the outer margins dentated. Anterior wing crossed at the middle by a broad irregular band of orange. Posterior wing crossed beyond the middle by a similar band of orange, broken near the apex where a portion of it forms a triangular spot.

UNDERSIDE as above, except that the anterior wing is ochreous near the apex, which is crossed by a band of four minute white spots: that the posterior wing is crossed before the middle by an angular broken band of white: that the apical spot (which is much larger, and undulated with brown) is united with the band, which is also slightly undulated with brown, and that the space between the band and the outer margin is undulated with ochreous-yellow, and has three triangular spots of lilac-white, each marked by a minute white spot.

Exp. $2\frac{1}{10}$ inch. Hab. Ecuador. (Alusana, Buckley.)

In the Collections of W. C. Hewitson and W. W. Saunders.

Nearly allied to *P. Philotera* of Hewitson.

PRONOPHILA PELINNA. 32, 33.

Pronophila Pelinna, Hewitson. *Trans. Ent. Soc.* p. 157, 1870.

UPPERSIDE. Male, dark brown, the outer margins slightly indented. Anterior wing crossed from the costal margin beyond its middle to very near the anal angle by a broad band of orange slightly indented on its inner border. Posterior wing crossed, beyond the middle, from the costal margin to the anal angle by a broad band of orange, very irregular on its outer border.

UNDERSIDE as above, except that the anterior wing is undulated with yellow near the apex and crossed by a series of four minute white spots, and that the orange band of the posterior wing is much paler, is undulated and clouded with brown, is marked near the apex with a spot of lilac, and crossed by three or four minute white spots.

Exp. $2\frac{1}{10}$ inch. Hab. Ecuador. (St. Rosario, Villagomes.)

In the Collections of W. C. Hewitson and W. W. Saunders.

Nearly allied to *P. Phæa*, more nearly to *P. Alusana*.

PRONOPHILA PHÆDRA. 34, 35.

Pronophila Phædra, Hewitson. *Trans. Ent. Soc.* p. 158, 1870.

UPPERSIDE. Male, dark brown, the outer margins slightly dentate, the fringe marked with pale yellow lunules. Anterior wing crossed at the middle by a band of yellow, which extends from the costal margin towards the anal angle a little beyond the first branch of the median nervure. Posterior wing with a large central trifid spot of yellow, indented on its outer border.

UNDERSIDE. Anterior wing as above, except that it is undulated with ochreous-brown near the apex, and is crossed by a submarginal band of black and four minute white spots. Posterior wing brown, beautifully undulated with ochreous-yellow, lilac, and dark brown: a short band of yellow before the middle of the costal margin: the yellow central spot as above, except that it is undulated with brown, and extends to both margins, forming a band across the wing: a submarginal series of pyramidal black spots and minute white spots.

Exp. $2\frac{3}{10}$ inch. Hab. Ecuador. (St. Rosario, Villagomes.)

In the Collection of W. C. Hewitson.

A variety of this species has the band of the anterior wing and the spot of the posterior wing white.

SATYRIDÆ.

PRONOPHILA, VI.



Howden, Locusts, Apr. 21 1875

M&NEanxat. imp

36 39 PRONOPHILA PALADES
37 PRONOPHILA POEANIA

38. 42. PRONOPHILA PERSEPOLIS.
40. 41. PRONOPHILA PARTHYENE

SATYRIDÆ.

PRONOPHILA. VI.

PRONOPHILA PALADES. 36, 39.

UPPERSIDE. Male, red-brown, the outer margins broadly dark brown. Anterior wing with a rufous spot on the costal margin near the apex, and a submarginal series of five or six rufous spots, each marked with a dark-brown spot. Posterior wing with a double series of six rufous spots, in each some of the spots of the upper series connected with those below them.

UNDERSIDE. Anterior wing as above, except that the apex is grey. Posterior wing tailed, grey clouded and undulated with dark brown: crossed at the middle by a broad angular band, dark brown from the costal margin to the middle, grey from the middle to the inner margin, bordered inwardly with dark brown, outwardly with white. A submarginal series of dark-brown spots, four of which are marked with white.

Exp. 3 inch. Hab. Ecuador. (Galgalan, Buckley.)

In the Collections of W. W. Saunders and W. C. Hewitson.

This does not differ sufficiently from *P. Circe* of Felder to make it specifically distinct. I have been misled by its unusual brilliancy of colouring.

PRONOPHILA PERSEPOLIS. 38, 42.

UPPERSIDE. Male, dark brown with the base red-brown ending in an acute point of paler colour near the middle of the anterior wing. Anterior wing with a broad irregular submarginal rufous band, broken in the middle and marked with three dark-brown spots. Posterior wing with an imperfect broad rufous band marked with large black spots.

UNDERSIDE. Anterior wing as above, except that it is paler and that there are spots of grey on the costal and outer margins near the apex. Posterior wing tailed, rufous-grey clouded and undulated with dark brown: crossed from the middle of the costal margin to the middle of the wing by a broad dark-brown band: crossed below the middle, between the median nervules to the inner margin, by a narrow band of brown: a submarginal series of dark-brown spots some of which are marked with white.

Exp. $2\frac{1}{2}$ inch. Hab. Ecuador. (Galgalan, Buckley.)

In the Collection of W. C. Hewitson.

PRONOPHILA PARTHYENE. 40, 41.

UPPERSIDE. Male, dark brown. Both wings crossed by a broad submarginal sinuated rufous band, marked near the apex of the anterior wing by a black spot: broader on the posterior wing and traversed by a series of large black spots. Anterior wing with a white spot near the costal margin beyond the middle.

UNDERSIDE. Anterior wing as above, except that it is paler, has a grey spot on the costal margin near the apex, two minute white spots and a spot of yellow at the middle of the outer margin. Posterior wing dentated and tailed, grey-white clouded and undulated with dark brown: crossed from the middle of the costal margin to the middle of the wing by a broad dark-brown band, and from this band to the inner margin by a grey-brown band bordered on both sides with dark brown: crossed near the outer margin by a series of black spots bordered with grey-brown, those spots nearest the tail marked with pale yellow, two larger spots near these of the same colour: irrorated with orange-yellow near the outer margin.

Exp. $2\frac{9}{20}$ inch. Hab. Ecuador. (Galgala, Buckley.)

In the Collection of W. C. Hewitson.

PRONOPHILA PÆANIA.

Pronophila Pæania, Hewitson. *Trans. Ent. Soc. p.* 158, 1870.

UPPERSIDE. Male, dark brown: the outer margins dentate chiefly on the posterior wing. Posterior wing with a large rufous space (occupying one-third of the wing) at the anal angle marked by two triangular brown spots.

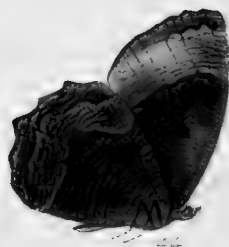
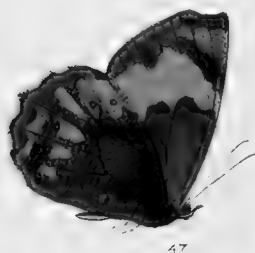
UNDERSIDE rufous-brown. Anterior wing crossed towards the apex by three oblong spots of ochreous-yellow: two spots of the same colour between the median nervures, a lilac triangular spot on the costal margin near the apex. Posterior wing with an angular broad band near the middle, margined on both sides with yellow: a spot of lilac at the apex traversed by a curved black line: a small spot, a larger lunular spot and three spots forming a triangle near the outer margin, all white.

Exp. $2\frac{3}{4}$ inch. Hab. Ecuador. (St. Rosario, Villagomes.)

In the Collection of W. C. Hewitson.

In form and in the marking of the underside like *P. Prochyta* and *P. Irmina*.

SAINT-REMI 1856.
PRONOPHILA VII.



W. Edwards, del. et sculp. April 1856.

M. & N. Harris, sculp. 1856.

48 44 PRONOPHILA POMPONA
45 PRONOPHILA BASICLEG.
46 PRONOPHILA PUPERTIAS

47 50 PRONOPHILA PARRHŒBIA
48 PRONOPHILA PHILONIS
49 PRONOPHILA TENA

SATYRIDÆ.

PRONOPHILA. VII.

PRONOPHILA POMPONIA. 43, 44.

Pronophila Pomponia, Hewitson. *Equat. Lep. p.* 33.

UPPERSIDE. Male dark brown. Anterior wing crossed near the outer margin by an undefined broad ferruginous band, posterior wing dentated.

UNDERSIDE grey-brown undulated with darker brown: anterior wing crossed by a broad submarginal band of pale yellow undulated with brown and bordered on both sides with black. Posterior wing crossed near the outer margin by a broad unequal band, somewhat paler than the rest of the wing, bordered on both sides with black and marked near the anal angle by a minute white spot.

Exp. $2\frac{3}{10}$ inch. Hab. Ecuador. (Pishcourco, Buckley.)

In the Collection of W. C. Hewitson.

PRONOPHILA PASICLES. 45.

UPPERSIDE dark brown. Anterior wing marked beyond the middle by three pale yellow spots, the first spot large and bifid, the third minute.

UNDERSIDE as above, except that the anterior wing is without the two smaller spots and that there is a very indistinct submarginal black linear band.

Exp. $1\frac{9}{10}$ inch. Hab. Ecuador. (Allatillo, Buckley.)

In the Collection of W. C. Hewitson.

PRONOPHILA PHERETIAS. 46.

UPPERSIDE. Male dark brown slightly marked with white on the edge of the costal margin and fringe of the anterior wing.

UNDERSIDE. Anterior wing rufous-brown slightly irrorated with white from the costal margin beyond the middle to the apex. Posterior wing dark brown with a white spot at the middle of the costal margin and a large triangular rufous spot undulated with darker colour near the anal angle: a minute white spot near the apex and anal angle.

Exp. $2\frac{1}{10}$ inch. Hab. Ecuador. (Galgalan, Buckley.)

In the Collection of W. C. Hewitson.

PRONOPHILA PARRHOEBIA. 47, 50.

UPPERSIDE dark brown. Both wings crossed beyond the middle by a rufous irregular sinuated band, divided by the nervures, which are black, into eight parts on the anterior wing, into five on the posterior wing.

UNDERSIDE. Anterior wing as above, except that there is a subapical triangular spot of yellow and near it a minute white spot. Posterior wing brown crossed beyond the middle by a band of conical ochreous spots undulated with darker colour: by a series of black spots each marked by a minute white spot: a grey-brown spot at the apex and a curved band of the same colour near the outer margin.

Exp. $2\frac{3}{10}$ inch. Hab. Ecuador. (Galgalan, Buckley.)

In the Collection of W. C. Hewitson.

PRONOPHILA PHILONIS. 48.

UPPERSIDE. Male dark brown dentated, the fringe with white lunular spots.

UNDERSIDE dark brown. Anterior wing with a curved linear spot on the costal margin beyond the middle and a subapical spot which is marked by a minute white spot, grey. Posterior wing rufous-brown undulated with dark brown: crossed from the inner margin near the anal angle to beyond the middle by a triangular orange-yellow band undulated with rufous-brown: by a series of black spots marked with white and by a submarginal pale-brown band deeply dentated and bordered with black on its outer border.

Exp. $1\frac{9}{10}$ inch. Hab. Ecuador. (Buckley.)

In the Collection of W. C. Hewitson.

I have, up to the present time, believed this to be a variety of *P. Paneis*; I now think that it is a distinct species.

PRONOPHILA TENA. 49.

Pronophila Tena, Hewitson. *Ent. Monthly Mag.* p. 98, 1869. *Equat. Lep.* p. 33.

UPPERSIDE. Female dark glossy ochreous-brown. Anterior wing with a central spot of darker brown: crossed beyond the middle by a band of six or seven white spots, the first spot nearest the apex (there are sometimes two) small, the rest large and oval, the sixth, near the inner margin bifid. Posterior wing crossed beyond the middle by three or four minute white spots.

UNDERSIDE as above, except that both of the wings are slightly irrorated with paler colour, and that the white spots of the anterior wing are much smaller.

Male like the female, except that there are only three or four of the white spots (and these much smaller) on the anterior wing, and none on the posterior wing.

Exp. $1\frac{9}{10}$ inch. Hab. Ecuador. (Pooyal, Buckley.)

In the Collection of W. C. Hewitson.

SATYRIDÆ.

PRONOPHILA VIII



From Scudder's Cat.

M&N Hanzhart imp

54. PRONOPHILA FASCICRATES
55. PRONOPHILA PERACICLA
56. PRONOPHILA FLAVITHORAX
57. PRONOPHILA LUNY

58. PRONOPHILA PHARNASPES
59. PRONOPHILA PALANTIAS
60. PRONOPHILA FLAVIDES
61. PRONOPHILA LITHOTES

S A T Y R I D Æ.

PRONOPHILA. VIII.

PRONOPHILA PASICRATES. 51, 59.

UPPERSIDE. Male dark brown. Anterior wing with a broad rufous band near the outer margin.

UNDERSIDE as above except that the anterior wing has a spot of paler brown in the cell and that the posterior wing is undulated with paler colour and has a broad band of the same colour marked by two or three minute white spots and bordered on both sides with dark brown near the outer margin.

Exp. $2\frac{1}{2}$ inch.

In the Collection of W. C. Hewitson.

PRONOPHILA PHRASICLA. 52.

UPPERSIDE. Male dark brown.

UNDERSIDE dark brown undulated with paler colour. Posterior wing marked beyond the middle by four white spots three of which are minute.

Exp. $2\frac{3}{10}$ inch. Hab. Ecuador. (Buckley.)

In the Collection of W. C. Hewitson.

PRONOPHILA PATIZATHES. 53.

UPPERSIDE dark brown.

UNDERSIDE dark brown undulated with paler colour: marked below the middle of the costal margin by a bifid white spot and near the outer margin by two or three minute white spots: slightly irrorated with white near the anal angle.

Exp. $2\frac{2}{10}$ inch. Hab. Ecuador. (Buckley.)

In the Collection of W. C. Hewitson.

PRONOPHILA PÆONIDES (not PORCIA).

UPPERSIDE. Female dark brown rufous towards the outer margin.

UNDERSIDE dark rufous-brown: the apex of the anterior wing and the whole of the posterior wing undulated with dark brown. Posterior wing with a white spot below the middle of the costal margin: crossed by a broken band of white irrorated with brown from the third median nervule to the anal angle.

Exp. $2\frac{2}{10}$ inch. Hab. Ecuador. (Buckley.)

PRONOPHILA PHARNASPES. 55.

UPPERSIDE. Female dark brown paler towards the outer margin. Posterior wing with the anal angle broadly rufous.

UNDERSIDE, dark brown. Anterior wing crossed near the outer margin by a broad band of paler colour. Posterior wing undulated with darker brown: crossed by a band of rufous-white commencing by a white spot between the discoidal nervure and the third median nervule and ending near the anal angle: two other minute white spots forming a line with the one mentioned: a submarginal rufous band.

Exp. $1\frac{3}{10}$ inch. Hab. Venezuela.

In the Collection of W. C. Hewitson.

PRONOPHILA PALLANTIAS. 56.

UPPERSIDE dark rufous-brown darkest at the middle of the anterior wing.

UNDERSIDE dark rufous-brown: the apex of the anterior wing and the whole of the posterior wing undulated with dark brown. Anterior wing with a small pale yellow spot on the costal margin below the middle. Posterior with a large orange-yellow spot in the same position.

Exp. $2\frac{2}{10}$ inch. Hab. Ecuador. (Buckley.)

In the Collection of W. C. Hewitson.

PRONOPHILA PORCIA (not PÆONIDES). 57.

Pronophila Porcia, Hewitson, *Equatorial Lepidoptera*, p. 34.

UPPERSIDE. Female rufous-brown darkest near the middle of the anterior wing.

UNDERSIDE rufous-brown the apex of the anterior wing and the whole of the posterior wing undulated with dark brown. Anterior wing with a white spot on the costal margin beyond the middle. Posterior wing crossed by a band of white from the costal margin beyond its middle to the third median nervule.

Exp. 2 inch. Hab. Ecuador. (Buckley.)

In the Collection of W. C. Hewitson.

PRONOPHILA PHTHIOTIS. 58.

UPPERSIDE. Male dark brown paler towards the outer margin. Anterior wing with an indistinct white spot on the costal margin below its middle.

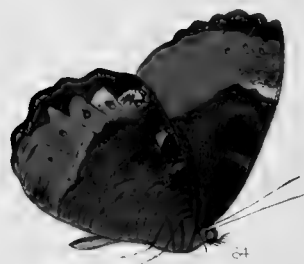
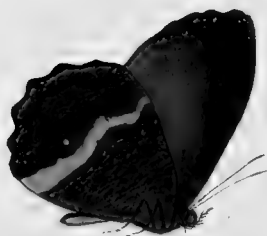
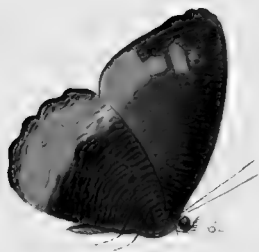
UPPERSIDE. rufous-brown undulated with darker brown. Anterior wing with the white spot as above but more distinct. Posterior wing with three white spots (two lunular) on the costal margin below its middle.

Exp. $2\frac{2}{10}$ inch. Hab. Ecuador. (Buckley.)

I have now added five additional species to the very rich equatorial collection of Mr. Buckley. Some of them are so obscurely marked, so slightly separated from each other that I was unwilling to describe them as new until I had seen a larger number of examples. I am now satisfied that they are distinct.

CATYRIDÆ.

PRONOPHILA IX.



W.C. Lewis, del. et lith.

M&N Hanhart imp.

60 PRONOPHILA PANTHIDES

61 62 PRONOPHILA PANDATES

63 PRONOPHILA PERISANES

64 66 PRONOPHILA PAMMENES

65 PRONOPHILA PACTYES

S A T Y R I D Æ.

PRONOPHILA. IX.

PRONOPHILA PANTHIDES. 60.

UPPERSIDE. Male dark brown.

UNDERSIDE brown. Anterior wing near the apex and the whole of the posterior wing undulated with dark brown and irrorated with white. Anterior wing with the basal half rufous; crossed beyond the middle by a band of dark brown and by a submarginal band of the same colour. Posterior wing crossed by a band of dark brown beyond the middle, by two or three minute white spots and by a submarginal band of dark brown spots.

Exp. $2\frac{4}{10}$ inch. Hab. Bolivia. (Buckley.)

In the Collection of W. C. Hewitson.

PRONOPHILA PANDATES. 61, 62.

UPPERSIDE. Female dark rufous-brown. Both wings crossed by a marginal band of orange commencing near the apex of the anterior wing in separate spots: broad and regular on the posterior wing where it is bordered outwardly with dark brown.

UNDERSIDE as above except that it is thickly undulated throughout with dark brown. Anterior wing tinted with lilac near the apex.

Exp. $2\frac{3}{10}$ inch. Hab. Bolivia. (Buckley.)

PRONOPHILA PERISADES. 63.

UPPERSIDE. Male uniform dark brown.

UNDERSIDE. Anterior wing rufous with the nervures and margins dark brown; crossed near the apex by three minute white spots and by a submarginal band

of black. Posterior wing dark brown irrorated with white: a white spot at the middle of the costal margin; crossed beyond the middle by a series of six white spots.

Exp. $2\frac{4}{10}$ inch. Hab. Bolivia. (Buckley.)

PRONOPHILA PAMMENES ♀. 64, 66.

UPPERSIDE. Male dark brown rufous towards the outer margin especially of the posterior wing.

UNDERSIDE as above except that there is a pale spot on the costal margin and three minute white spots towards the apex of the anterior wing. Posterior wing undulated with dark brown: a pale rufous spot at the middle of the costal margin; crossed beyond the middle by a pale rufous band, by a series of minute white spots and by a submarginal band of dark brown.

Female differs from the male only in having a white spot near the apex.

Exp. $2\frac{7}{10}$ inch. Hab. Bolivia. (Buckley.)

PRONOPHILA PACTYES. 65.

UPPERSIDE. Male dark brown. Anterior wing with the fringe alternately brown and white. Posterior wing crossed at the middle by an indistinct rufous band.

UNDERSIDE as above except that the apex of the anterior wing and the whole of the posterior wing are irrorated with grey and white: that the central band of the posterior wing is distinct and orange and that there is a minute white spot below it.

Exp. $2\frac{2}{10}$ inch. Hab. Bolivia. (Buckley.)





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ATRENA

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S A T Y R I D Æ.

DEBIS. I.

DEBIS ANYSIS. 1.

UPPERSIDE. Male, rufous-brown; anterior wing crossed at the middle by a band of darker brown; posterior wing with a tuft of long hair in the middle, and half-way between it and the outer margin four ocelli, the lower two only, with white pupils, the iris indistinct light brown.

UNDERSIDE rufous; anterior wing crossed by three bands of rufous-brown; one near the base: one a little beyond it crossing the cell only: the third beyond the middle, followed by four nearly blind ocelli, though pupilled with white, with a rufous border above and below; posterior wing crossed by two rufous bands; one near the base: the other near the middle (curved), followed by seven ocelli; the first near the costal margin (largest), the seventh near the anal angle (minute, united to the sixth); all black with white pupils, the iris rufous-orange, bordered with black, and again by rufous-yellow and rufous-brown; the outer margin and a line near it brown.

Expan. $2\frac{6}{10}$ in. Hab. East India.

In the Collection of W. C. Hewitson.

DEBIS MARPESSA. 2.

UPPERSIDE dark brown.

UNDERSIDE rufous and grey-brown, paler near the outer margin; both wings crossed by three transverse undulating bands of brown; the first before the middle; the second at the middle; the third near the outer margin; the outer margins and a submarginal line brown; anterior wing with a pale rufous band at the end of the cell, and five nearly blind ocelli, having white pupils; posterior wing with three pale rufous spots, and five ocelli; the first, second, and fifth, black, the third and fourth rufous; all with white pupils and ill-defined rufous iris.

Expan. $2\frac{7}{20}$ in. Hab. Amazon.

Not being able to find a place for this species in any of the South American genera, I have added it to this genus. It might, perhaps, have been better placed with *Taygetis*, but does not accord with the characters there given by Mr. Westwood; its eyes are not smooth, and the second branch from the subcostal nervure is not thrown off before the end of the cell. In its colour, in the position of the spots and bands of the underside, it bears considerable resemblance to the species which I have figured on the same plate under the name of *D. Segonax*. In its hirsute eyes and palpi, and the neururation of the wings (except that the second branch of the subcostal nervure is not thrown off before the end of the cell), it agrees very well with *Debis*.

DEBIS SICELIS. 3.

UPPERSIDE. Female, yellow-brown. Anterior wing crossed near the middle by an indistinct pale band; posterior wing with indistinct submarginal lines and four ocelli, two of them little more than minute brown spots, one only (the lowest) with a white pupil.

Deb. sicelis 362.

UNDERSIDE yellow-brown, with the outer margins and a line near them dark brown; anterior wing with a band across the cell, and a curved band at the middle, bordered outwardly with white: a band of white near the apex enclosing two ocelli; posterior wing with a broad, transverse white band with rufous border on both sides before the middle, followed by seven ocelli; the first and fifth the largest, the sixth and seventh united; all black, with white pupils, the iris orange-yellow, bordered with light brown, and again with lilac-white.

Expan. $2\frac{4}{10}$ in. Hab. Japan.

In the Collection of W. C. Hewitson.

DEBIS LATIARIS. 4.

UPPERSIDE. Female, yellow-brown; anterior wing with an indistinct transverse band at the middle, and a small rufous spot near the apex; posterior wing with three indistinct blind ocelli; the outer margin and a line near it dark brown, the space between the lines yellow; the cilia grey.

UNDERSIDE light grey or yellow-brown; both wings with the outer margin and a line near it dark brown, with between them a line of yellow; anterior wing crossed before the middle by two short rufous bands: at the middle by a band of white, (its inner border rufous,) forming a triangle with a broad grey band, which runs parallel to the outer margin, and incloses four small indistinct ocelli; posterior wing crossed before the middle by a straight rufous band; at the middle by a curved band of the same colour, followed by seven ocelli: the first apart from the rest, the sixth and seventh (at the anal angle) in one; all black, with white pupils, the iris yellow, margined with dark brown, and again with lilac-white.

Expan. $2\frac{1}{2}$ in. Hab. Sylhet.

In the Collection of W. C. Hewitson.

Very nearly allied, except in colour, to *D. Anysis*.

DEBIS SEGONAX. 5.

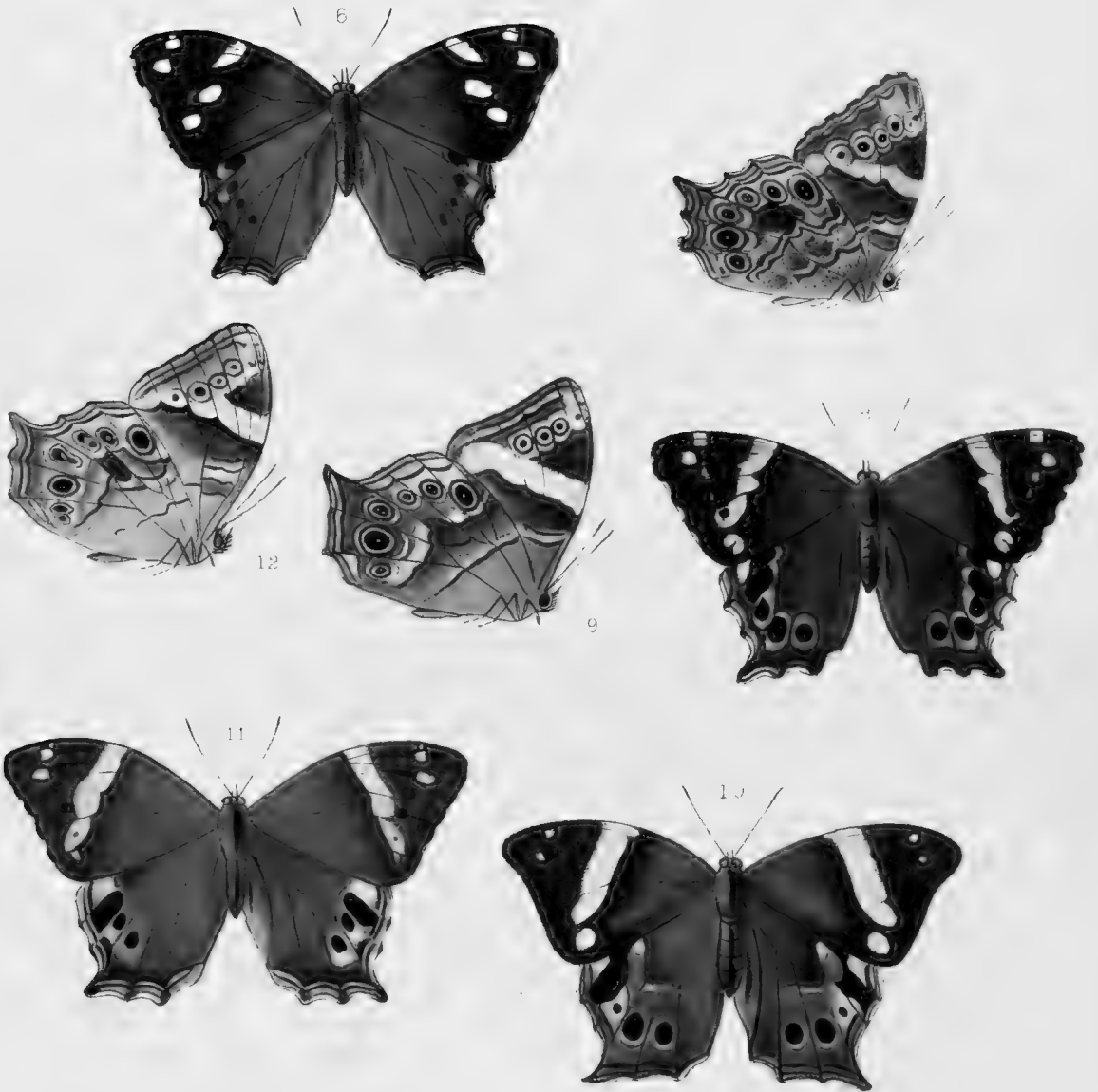
UPPERSIDE. Male, rufous-brown; anterior wing with a white spot near the apex, and below it a black blind ocellus; posterior wing with four oval black blind ocelli.

UNDERSIDE rufous, clouded with grey and brown; both wings crossed beyond the middle by a rufous band bordered on both sides: on its outer side with grey-white; both with a zig-zag band near the outer margin: the outer margin and a parallel line dark brown; anterior wing with two rufous bands across the cell, inclosing a third band divided into four; four oval ocelli, the second obscure; posterior wing with three round spots of yellow near the base, followed by a broken rufous band: eight small ocelli; all black, with white pupils, the iris rufous.

Expan. $2\frac{9}{10}$ in. Hab. China.

In the Collection of W. C. Hewitson.

SATYRIDAE.
DEBIS 11.



V. L. Levison, de c. 11. 362

V. L. Levison

6 DEBIS NEFLCHERIENSIS
7 8 DEBIS EARETIS

9 10 DEBIS INALANTE
11 12 DEBIS DRIPETIS

S A T Y R I D Æ.

DEBIS. II.

DEBIS NEELGHERIENSIS. ♀ 6.

♂ *Satyrus Neelgheriensis* Guérin in *Delessert's Voyage dans l'Inde*. Pl. 21, fig. 1.

UPPERSIDE. Female, light brown. Anterior wing with the outer half dark brown, crossed obliquely beyond the middle of the wing by three white spots, and near the apex by two of the same colour. Posterior wing with a band of four spots beyond the middle, the outer margin and two submarginal lines black.

UNDERSIDE grey and rufous-brown. Anterior wing with the white spots as above, and between them a band of three ocelli. Posterior wing *with two perfect ocelli only*—one, the largest, at the costal margin, the other towards the anal angle; between these ocelli there is a trifid triangular space minutely dotted with black and white, and at the anal angle an eye-like rufous spot enclosing two oval spots of black, dotted with white.

Expan. $2\frac{4}{10}$ in. Hab. Neelgheries.

In the Collections of W. W. Saunders and W. C. Hewitson.

The insect figured by Guérin, though said by him to be a female, is, I have no doubt, of the other sex. No one can see this Butterfly without noticing the great resemblance it has to the females of some of the species of *Cybdelis*.

DEBIS DARETIS. 7, 8.

UPPERSIDE. Female, rufous-brown. Anterior wing crossed near the middle by a *sinuated band* of five pale yellow spots, the first four divided by nervures only, the fifth solitary: two pale yellow spots near the apex. Posterior wing with a submarginal band of five large black eye-like spots bordered with rufous-yellow: a spot of yellow at the apex.

UNDERSIDE grey and rufous-brown, with numerous spots and bands of darker

Ind. 1850.

brown. Anterior wing with the spots as above, and between them a band of five ocelli, the first and last incomplete. Posterior wing with a band of *six perfect ocelli*, some with several white dots.

Expan. $2\frac{4}{10}$ in. Hab. Ceylon.

In the Collection of the British Museum. Presented by Mr. Green.

DEBIS DYNSTATE. 9, 10.

UPPERSIDE. Female, rufous-brown. Anterior wing dark brown, except near the base; crossed at the middle by a broad *equal band* of white and a solitary white spot; two indistinct white spots near the apex. Posterior wing with a large bilobed spot near the apex, followed by three black blind ocelli (one minute).

UNDERSIDE rufous and grey-brown. Anterior wing with the white band continuous to the anal angle, with, between it and the apex, a band of three blind ocelli. Posterior wing with a band of six perfect ocelli—the *first and fifth large*, the other four small and somewhat mis-shapen, each with two or three white dots.

Expan. $2\frac{11}{20}$ in. Hab. Ceylon.

In the Collection of the British Museum.

DEBIS DRYPETIS. 11, 12.

UPPERSIDE. Female, rufous-brown. Anterior wing with the outer half dark brown, crossed by a continuous sinuated band of white, without the anal spot; two white spots near the apex. Posterior wing with a large white spot at the apex, followed by a large oval spot of black, and two smaller spots of the same colour bordered below with white and lilac.

UNDERSIDE rufous-brown, with the band and white spots as above, and between them a band of three blind ocelli and two minute black spots. Posterior wing with two perfect ocelli, and between them three oblong spots, rufous and black dotted with white; near the anal angle two similar black spots dotted with white.

Expan. $2\frac{11}{20}$ in. Hab. Ceylon.

In the Collection of W. C. Hewitson.

I have only attempted in the descriptions to point out the peculiarities of the central white bands and ocelli. I hope that the figures will elucidate (as descriptions only would be inadequate to do) the many minute differences which have compelled me to consider the four closely-approximating species of the plate as distinct; if they were European we should certainly never hesitate to separate them.

SATYRIDAE.

DEBIS III



6. lewison del et lith 1862

M & N. Hannart Imp^t

18 14 DEBIS SYRCH

17 DEBIS DINARBAS.

18 DEBIS SIDONIS

17 18 DEBIS NICETAS

19 20 DEBIS SINORIX

S A T Y R I D Æ.

DEBIS. III.

DEBIS SYRCIS. 13, 14.

UPPERSIDE. Female, pale rufous-brown. Anterior wing crossed transversely beyond the middle by two bands of brown: the outer margin and a submarginal line brown. Posterior wing with a band of five black blind ocelli, and two minute anal spots, four of the ocelli large, the middle one small, all bordered with yellow: a marginal band of pale yellow traversed by a black line; the margin also black.

UNDERSIDE lilac-yellow: both wings crossed before the middle by a linear rufous band. Anterior wing with the bands as above. Posterior wing crossed at the middle by a curved angular rufous band, followed by a band of five ocelli: two (the first large) near the costal margin, the third small and imperfect, the fourth largest, the fifth at the anal angle bipupillated, each with the white pupil large, the iris yellow with a rufous border; the outer margin as above.

Expan. $2\frac{8}{10}$ in. Hab. North China.

In the Collection of the British Museum.

DEBIS DINARBAS. 15.

UPPERSIDE brown. Anterior wing crossed at the middle by a very indistinct band of brown: a minute bifid white spot and obscure brown spot near the apex. Posterior wing with four obscure brown spots (one minute) near the outer margin, the spot nearest the anal angle dotted with white.

UNDERSIDE brown. Anterior wing paler towards the outer margin, tinted with lilac: the cell crossed by two rufous lines, the transverse band and apical spot as above, but more distinct, with, between them, three minute ocelli (one blind); the outer margin and two submarginal lines rufous-brown. Posterior wing crossed transversely by two rufous-brown bands; one before the middle straight, the other at the middle curved, followed by a band of six ocelli, each with pupil white and rufous iris bordered with brown and lilac.

Expan. $2\frac{1}{10}$ in. Hab. North India.

In the Collection of the British Museum.

DEBIS SIDONIS. 16.

UPPERSIDE. Male, dark-brown. Anterior wing with an indistinct white spot near the apex. Posterior wing with two or three indistinct black spots near the outer margin.

Sub. Apr 1. 1912.

UNDERSIDE brown. Anterior wing with an indistinct band across the cell, a white spot beyond the middle of the costal margin part of a brown band which crosses the wing, a second white spot near the apex, and below it three black spots dotted with white. Posterior wing crossed by several lines of silvery white, followed by a band of seven black ocelli: the first (at the costal margin) and the fifth large, two at the anal angle (touching); each with pupil of white and rufous iris bordered with silvery white; a submarginal line of silvery white, the margin rufous bordered on both sides with black.

Expan $2\frac{2}{10}$ in. Hab. North India.

In the Collection of W. C. Hewitson.

DEBIS NICETAS. 17, 18.

UPPERSIDE. Female, light rufous-brown. Anterior wing with the outer half darker brown, crossed beyond the middle by a macular band of pale yellow, and nearer the apex, by three spots of the same colour. Posterior wing with a band of five black spots with rufous border, the outer margin rufous bordered on both sides with black; some submarginal dark-brown conical spots.

UNDERSIDE rufous-yellow. Anterior wing as above, except that the transverse band is continuous, and that two of the three spots near the apex are small ocelli. Posterior wing from the base to the middle rufous-brown, crossed by several indistinct lilac bands: the outer half rufous-yellow darker towards the outer margin, crossed by a band of seven black ocelli (two at the anal angle touching), each with pupil of white and rufous iris bordered with lilac; a submarginal band of silvery white, the margin rufous, bordered on both sides with black.

Expan. $2\frac{5}{20}$ in. Hab. East India.

In the Collection of W. C. Hewitson.

It seems to me very probable that this may prove to be the female of the last described—D. Sidonis.

DEBIS SINORIX. 19, 20.

UPPERSIDE. Male, rufous-brown. Anterior wing with three pale yellow spots near the apex. Posterior wing with a broad rufous band near the outer margin encircling four round black spots; the second spot large, the fourth small.

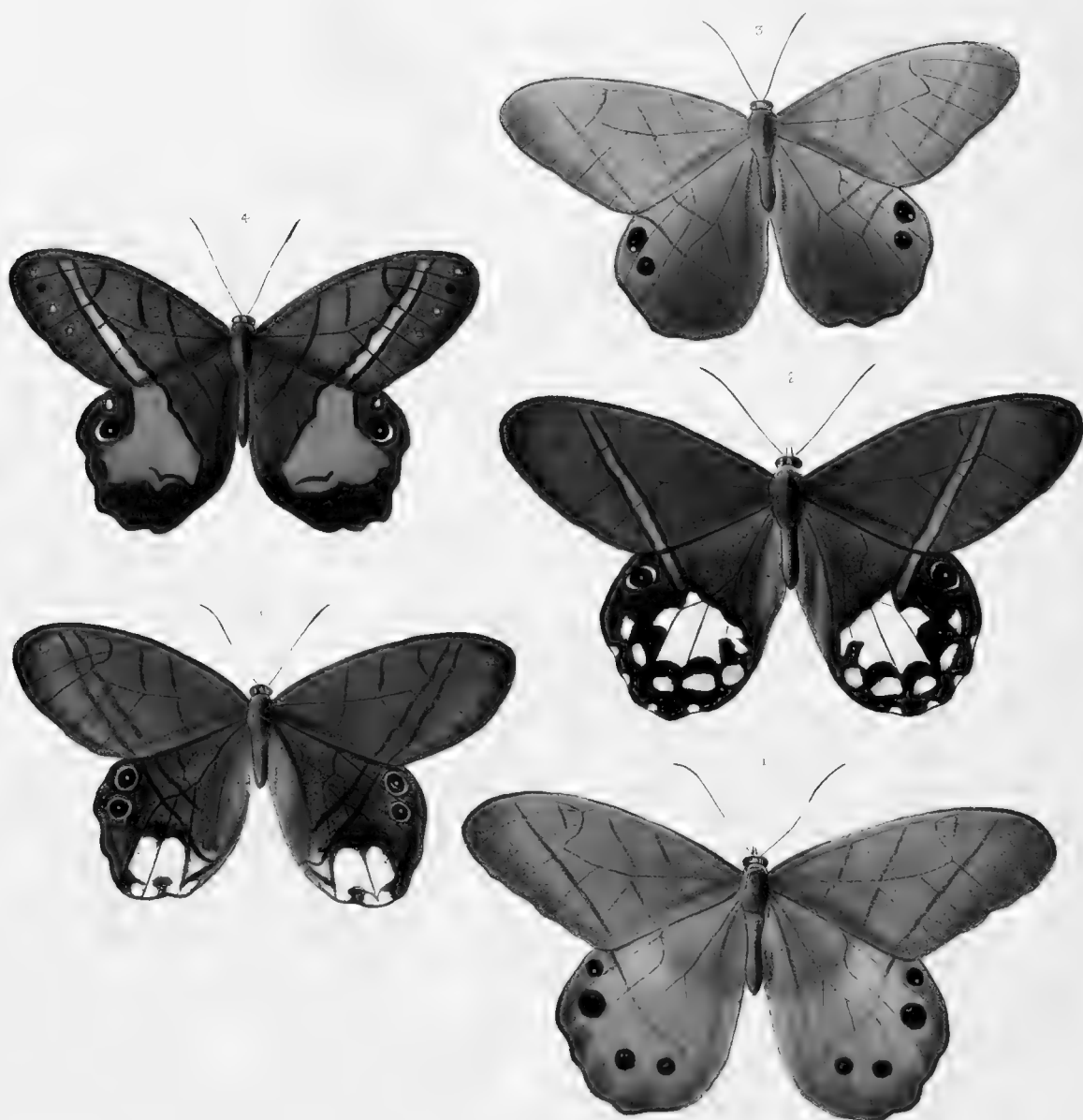
UNDERSIDE rufous; both wings crossed by two continuous linear bands of rufous-brown. Anterior wing with the apex lilac-white: the three yellow spots as above, and associated with them two small ocelli. Posterior wing with a band of six small ocelli, the third out of line: each with pupil of white and rufous iris bordered with brown and again with silvery white: a triangular white spot at the anal angle: a submarginal line of lilac-white: the margin rufous, bordered on both sides with black.

Expan. $2\frac{8}{10}$ in. Hab. East India.

In the Collection of W. C. Hewitson.

SATYRIDÆ.

HETERA



Published July 1859

Printed by Hullmandel & Walton

1. HÆTERA HYCETA

2. HÆTERA LENA. var.

4. HÆTERA HELVINA

3. HÆTERA LUNA

5. HÆTERA ASTYOCHÆ. var.

SATYRIDÆ.

HÆTERA.

HÆTERA HYCETA. 1.

UPPERSIDE. Female rufous-brown. Posterior wing, except the base and outer margin, rufous, marked with four round black spots; the spot nearest the costal margin dotted with white. Both wings crossed by three nearly equi-distant indistinct bands of brown. Anterior wing with a short brown line a little beyond the end of the cell.

UNDERSIDE as above, except that it is lighter and undulated throughout with light brown, the transverse bands more distinct; that the anterior wing has a minute black spot near the base, and four minute white spots near the apex; that the posterior wing has three minute black spots near the base, and that the four black spots are much less distinct.

Expan. $3\frac{3}{10}$ in. Hab. Amazon.

In the Collection of the British Museum.

HÆTERA LENA. Var. 2.

P. Lena Linn.—*Cramer, Pl.* 198.

UPPERSIDE. Female rufous-brown. Anterior wing crossed obliquely by a lighter band, bordered on both sides with black, and extended to a short distance on the posterior wing. Posterior wing below the middle black, marked by a large irregular white spot, divided by the nervures; a round black spot dotted with white and bordered with white above and below, near the apex; a band of grey or white irregular spots near the outer margin, and four small white spots on the margin.

UNDERSIDE lighter. The transverse band nearly white, and continued to the inner margin of the posterior wing. Anterior wing with the cell crossed by three white spots and a band of brown. Four white spots near the outer margin. Posterior wing with three minute black spots at the base. Crossed before the middle by a band of brown. Brown below the middle, the white spot more divided than above. Two distinct black eyes near the apex, each with rufous border and white dot. The grey spots represented by a sprinkling of white.

The male does not differ.

Expan. $3\frac{3}{10}$ in. Hab. Upper Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

A variety of *H. Lena*, in the Collection of Mr. Bates, has a rather large distinct black spot near the apex of the anterior wing.

HÆTERA LUNA. 3.

P. Luna Fabricius, *Ent. Syst.*

UPPERSIDE. Female light rufous-brown, darker from the middle to the outer margin of the posterior wing. Both wings crossed by three narrow indistinct nearly equi-distant bands

Dub. Soc., 1860

of brown. Anterior wing with a short brown band just beyond the end of the cell. Posterior wing with two black eye-like spots near the apex, and one minute spot towards the anal angle, the spot nearest the costal margin dotted with white.

UNDERSIDE much lighter, undulated throughout with short rufous lines. Anterior wing with one minute black spot near the base, posterior wing with three. The bands more distinct. Both wings with a row of scarcely seen minute white spots near the outer margin. The black spots of the upperside absent, except a small ill-defined spot in place of the largest.

The male does not differ.

Expan. $2\frac{9}{10}$ in. Hab. Nicaragua.

In the Collections of W. W. Saunders and W. C. Hewitson.

Most likely only a variety of *H. Dindymene*.

HÆTERA HELVINA. 4.

UPPERSIDE. Male brown, slightly tinted with purple. Crossed transversely by three bands of black, one near the base, the second (a short one) in the cell, the third (also short) forming the end of the cell. Crossed obliquely by a band of lilac, bounded on each side with black. A row of four minute spots near the apex; one (the second) black, and three white. Posterior wing with a large central spot of rich carmine, bordered (except where it approaches the outer margin) with black. A minute white spot near the apex, and a large eye-like black spot dotted with white; its lower border also white.

UNDERSIDE as above, except that the band of the anterior wing is nearly white, that the carmine spot is faded, and has all its lower border (which does not, as above, approach the outer margin) bounded with black, and that there are two white dots following the eye.

Expan. $2\frac{6}{10}$ in. Hab. New Granada.

In the Collections of W. C. Hewitson and the British Museum.

HÆTERA ASTYOCHÆ. Var. 5.

Hætera Astyoche, *Erichson in Schomburgk's British Guiana*.—*H. Larymna*, *Doubleday, in Gen. Diur. Lep., Pl. 62.*

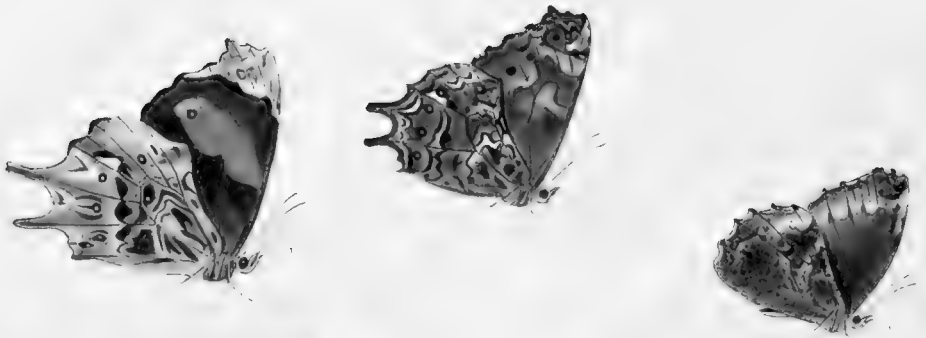
UPPERSIDE. Female dark rufous-brown. Anterior wing crossed transversely by three bands of black, one near the base, the second (a short one) in the cell, the third also short, bounding the cell. Both wings crossed obliquely by a band of lighter colour, bordered on both sides with black, widest on the inner margin of the posterior wing. Posterior wing with, near the apex, two black eyes, each with a dot of white and rufous border, followed by a minute white spot and two large conical spots of white separated by a nervure only, also some smaller spots of white between them and the margin.

UNDERSIDE as above, except that the oblique band is nearly white, that the anterior wing has near the apex three minute white dots, that the posterior wing has three minute black spots at the base and one at the end of the cell, a transverse band near the base (in continuation of the band of the anterior wing), some white round the eyes, and between them and the large white spots.

Expan. $2\frac{8}{10}$ in. Hab. Upper Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

THE BUTTERFLY COLLECTION



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SATYRIDÆ.

DÆDALMA. *Hewitson.*

HEAD and eyes densely covered with long hair. Palpi long and projecting.

Anterior wing with the sub-costal nervure four-branched; the first and second branches before the end of the cell.

Posterior wing usually tailed, the costal margin projecting.

DÆDALMA DINIAS. 1, 2, 3.

UPPERSIDE. Male (2) dark brown. Anterior wing falcated with a large oval central orange spot; the extreme costal margin near the apex, with four small linear white spots. Posterior wing with two tails.

UNDERSIDE, as above, except that the apex of the anterior wing and the whole of the posterior wing are beautifully variegated with brown and grey, and adorned with several spots of silvery white. The costal margin angular.

Female () differs in being of a lighter brown, in having a transverse row of indistinct white spots near the apex, and several ill-defined triangular rufous spots on the posterior wing. On the underside (1) it is lighter than the male.

Expan. $2\frac{4}{10}$ in. Hab. New Granada.

In the Collection of W. C. Hewitson

DÆDALMA DORÆTE. 4, 5.

UPPERSIDE. Male rufous-brown. Both wings crossed beyond the middle by a double row of light yellow spots parallel to each other and the outer margin. Anterior wing with a small bifid white spot near the costal margin, and four small linear spots on the margin near the apex; the course of the median nervure lighter than the rest of the wing.

UNDERSIDE totally different. Exquisitely varied and better described by pencil than by pen.

Expan. $2\frac{7}{10}$ in. Hab. New Granada.

In the Collections of W. C. Hewitson and W. W. Saunders.

DÆDALMA DRYMÆA. 6. .

UPPERSIDE dark brown from the base to the middle of both wings, from the middle to the margins light brown; the margins marked with white between each nervule. The costal margin near the apex with four small white linear spots.

UNDERSIDE. Anterior wing, from beyond the middle to the outer margin, and the whole of the posterior wing, variegated with grey, and brown, and white.

Expan. $1\frac{7}{10}$ in. Hab. New Granada.

In the Collection of W. C. Hewitson.

DÆDALMA DRUSILLA. 7.

UPPERSIDE. Male dark brown. The outer margin spotted with white between the nervules; the costal margin near the apex with four small white linear spots.

UNDERSIDE. Anterior wing brown, with a lighter spot within the cell; a tortuous light brown transverse band beyond the middle, followed by a row of three or four black spots, parallel to the outer margin; the apex variegated with grey and brown. Posterior wing with two tails, richly variegated with grey, and brown, and black, with several silvery-white spots. Costal margin angular.

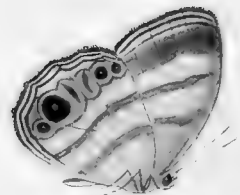
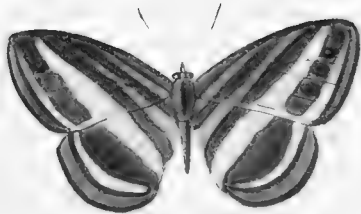
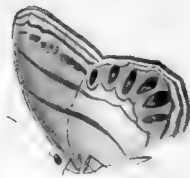
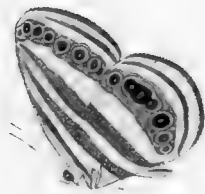
Expan. $1\frac{9}{10}$ in. Hab. New Granada.

In the Collection of W. C. Hewitson.

The insects of this genus are closely allied to *Steroma* of Westwood, and though at first sight *D. Doræte* might appear to be widely separated from the rest, they form a very natural groupe. They all have the costal margin near the apex of the anterior wing marked with four lines of white. They are all from the Collection of Mr. and Mrs. Mark, and are quite new.



THE BUTTERFLY



SATYRIDÆ.

EUPTYCHIA AND RAGADIA.

EUPTYCHIA NOSSIS. 1.

UPPERSIDE. Male, dark brown, with indistinct submarginal bands of brown; posterior wing with one black ocellus towards the anal angle, with two white pupils, the iris rufous.

UNDERSIDE brown; both wings crossed by two transverse bands of brown; one before, the other at, the middle; both with the outer margin and two parallel lines near it dark brown. Anterior wing with the outer half grey, marked near the apex by one black ocellus, with two pupils and orange iris, and traversed by a band of brown; posterior wing with the inner margin and a broad transverse band of white, followed by four ocelli: two small and imperfect: two large, each with two pupils of silvery white and iris of orange.

Expan. $1\frac{9}{10}$ in. Hab. Quito.

In the Collections of W. W. Saunders and W. C. Hewitson.

EUPTYCHIA NORTIA. 2.

UPPERSIDE yellow-white, the bands and spots of the underside seen through; both wings, with the outer margin and cilia and two parallel lines near it, dark brown; anterior wing with the base and costal margin brown.

UNDERSIDE rufous-white; both wings crossed by three bands of brown; the third (beyond the middle) broad; both with the outer margin, the cilia, and two parallel lines, dark brown; anterior wing with the costal margin grey-brown; posterior wing with four black ocelli (the third largest), all with pupils of light blue, and iris rufous; between the ocelli, which are in pairs, are two orange-yellow spots, each with an oblong silver spot.

Expan. $1\frac{8}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

EUPTYCHIA ITONIS. 3.

UPPERSIDE. Male, brown; anterior wing rufous-brown; posterior wing with the basal half white, the outer half dark brown, the outer margin and two parallel lines black, the space between them rufous or white towards the anal angle.

UNDERSIDE. Anterior wing and the base of the posterior grey-brown; both wings crossed before the middle by a rufous-brown line; both with the outer margin and two parallel lines black, the space between the lines white; anterior wing crossed near the middle by a brown line, followed by a broad band of white, bordered with brown

Sub h. 1850.

and inclosing a band of brown; traversed by spots and lines of silver; posterior wing, from the base to the middle, yellow-white, with a short rufous line projecting from the costal and inner margins as if part of an imperfect band: outer half orange-yellow, with several black spots nearly covered with silver: one of them large and round with a silver centre.

Expan. $1\frac{9}{20}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

EUPTYCHIA FURINA. 4.

UPPERSIDE. Male, brown; both wings with the outer margin and two parallel lines of dark brown; posterior wing with a large white spot (crossed by a brown line) at the middle of the costal margin, followed by four or five oblong black spots.

UNDERSIDE. Anterior wing and base of the posterior grey-brown; both wings crossed by two rufous-brown bands; both with the outer margin, cilia and two parallel lines of brown; anterior wing with an ill-defined band of grey-brown beyond the middle, its centre rufous with a silver spot; posterior wing white, with a broad rufous band beyond the middle, having six oblong conical silver spots with their bases black.

Expan. $1\frac{6}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

This and the beautiful species which precedes it are closely allied to *E. Pagyris* of Godart, and *E. Cosmophila* of Hubner's Zutrage. Mr. Westwood has put one of these with *Euptychia*, the other in the genus *Neonympha*; they must not, however, be parted, and are, very likely, sexes of the same species.

RAGADIA CRISILDA. 5, 6.

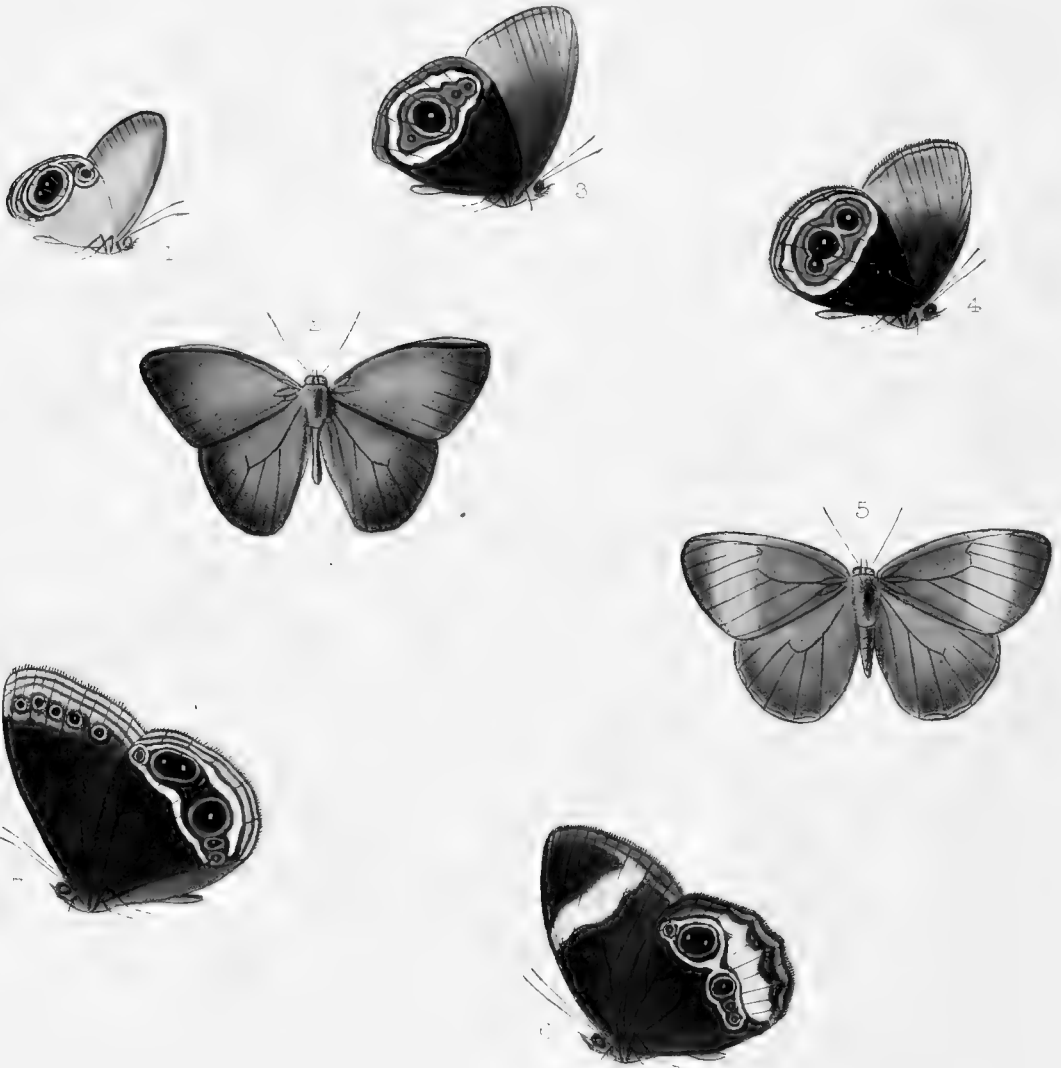
UPPERSIDE brown; both wings crossed at the middle by a broad oblique band of white; both with a narrow band of white parallel to the outer margin, obscured towards the apex of the anterior wing.

UNDERSIDE white, both wings with the outer margin and five transverse bands brown: three parallel bands before the middle, (crossing the anterior wing obliquely:) the fifth band near the outer margin narrow: the fourth beyond the middle marked with numerous ocelli; on the anterior wing by six, of equal size; on the posterior wing by seven, the third and fifth the largest: the seventh (near the anal angle) minute; all black, with silver pupils, the iris orange: the second, third, and fourth ocelli of the posterior wing inclosed in one iris.

Expan. $1\frac{17}{20}$ in. Hab. Syllhet.

In the Collection of W. C. Hewitson.

COLEOPTERA HYPOCYSTA



1. *Hypocysta* *sp.*

2. *Hypocysta* *sp.*

3. *Hypocysta* *sp.* 4. *Hypocysta* *sp.*
 5. *Hypocysta* *sp.* 6. *Hypocysta* *sp.*

SATYRIDÆ.

HYPOCISTA AND ZIPÆTIS.

HYPOCISTA HÆMONIA. 1.

UPPERSIDE. Male yellow-brown. Anterior wing with a large central oblong spot of dull yellow. Posterior wing with a large oval trifold black ocellus, with three pupils of white, and one orange-yellow iris.

UNDERSIDE as above, except that the basal half of the posterior wing is pale yellow, that the large ocellus is surrounded by a band of silver, that there is a small black ocellus near the apex with pupil of white and rufous iris, also surrounded with silver, and that there is a submarginal band of silver.

Expan. $1\frac{1}{2}$ in. Hab. New Guinea.

In the Collections of W. W. Saunders and W. C. Hewitson.

Nearly allied to *H. Osyris* of Boisduval, figured by Dr. Felder in the *Wiener Entomologische Monatschrift*, Vol. IV. Pl. iii.

HYPOCISTA HYGEA. 2, 3.

UPPERSIDE. Male lilac-brown: the margins dark brown.

UNDERSIDE dark brown from the base to the middle, the outer margins and a line near them dark brown. Anterior wing rufous-brown beyond the middle. Posterior wing with one large ocellus, with the pupil white, the iris rufous, bordered by a band of rufous-brown, which is marked with four minute silvery spots, and surrounded by a broad common band of silver.

Female larger, with broader wings: rufous-brown on the upperside, the anterior wing crossed beyond the middle by a broad pale rufous band. On the underside it does not differ from the male.

Expan. ♂ $1\frac{1}{2}$ in.; ♀ 2 in. Hab. New Guinea.

In the Collections of W. W. Saunders and W. C. Hewitson.

HYPOCISTA HECAERGE. 4, 5.

UPPERSIDE. Female rufous-brown. Anterior wing crossed beyond the middle by a broad band of pale yellow.

UNDERSIDE. Anterior wing as above, except that the basal half is darker brown, and that the outer margin and a line near it are dark brown. Posterior wing with the basal half dark brown, three large black ocelli beyond the middle, the pupils white, the iris rufous, the whole bordered with rufous-brown, and again with a broad band of silver.

Expan. $1\frac{9}{10}$ in. Hab. New Guinea.

In the Collections of W. W. Saunders and W. C. Hewitson.

Z. 1. 1. 1. 1. 1.

ZIPÆTIS. *Hewitson.*

Body small, hairy. Eyes smooth, small. Palpi long, compressed, thickly clothed with long hair; the last joint scarcely seen. Antennæ slender, short, slightly thicker from the middle to the tip; the articulations short, easily seen.

Anterior wing with the costal margin arched, the apex rounded, the inner margin nearly straight: the costal nervure alone swollen at the base, reaching the middle of the wing: subcostal nervure with four branches, equidistant; two before the end of the discoidal cell: discoidal cell half the length of the wing, closed: upper disco-cellular nervure very short, the second half as long as the third, slightly curved inwards, the third curved outwards, united to the third branch of the median nervure (which joins at an angle) at a distance from its base.

Posterior wing with the costal nervure joining the margin at the middle of the wing: subcostal nervure with its first branch arising at its middle: the discoidal cell closed obliquely: the upper disco-cellular nervure arising at a short distance below the first branch of the subcostal nervure, the second twice its length, joining the third median nervure at a short distance from its base.

ZIPÆTIS SAITIS. 6.

UPPERSIDE. Male dark brown; both wings crossed beyond the middle by a band of white.

UNDERSIDE as above, except that the posterior wing is crossed by a band of five ocelli, with white pupils and rufous iris, bordered with silver; the first, fourth, and fifth small, the second large and with two pupils, the third half its size.

Expan. $2\frac{3}{10}$ in. Hab. Neilgherries.

In the Collections of W. W. Saunders and W. C. Hewitson.

ZIPÆTIS SCYLAX. 7.

UPPERSIDE. Dark brown, paler towards the margins: the outer margins rufous, traversed by a submarginal black line.

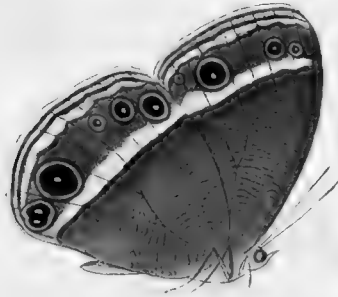
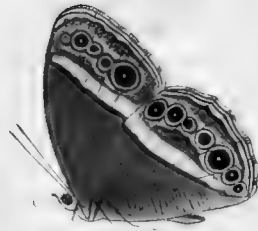
UNDERSIDE as above, except that there are two submarginal lines of black, that the anterior wing has a band of five small ocelli, the pupils blue, the iris rufous, and that the posterior wing has a band of five ocelli, the pupils blue, the iris rufous; the first, fourth, and fifth small, the fourth oval, with two pupils, the third large; all surrounded by a common band of silver.

Expan. $2\frac{4}{10}$ in. Hab. Sylhet.

In the Collection of W. C. Hewitson.



Stilpnus *Stilpnus*



Stilpnus

Stilpnus

Stilpnus

Stilpnus

Stilpnus

S A T Y R I D Æ.

MYCALESIS. I.

MYCALESIS NICOTIA. 1.

M. Nicotia, Hewitson, *Gen. Diur. Lep. Pl.* 66, *f.* 4, *p.* 394 (*upperside*),

var. M. Heri Moore, *Cat. Lep. F. I. C. Mus.* *p.* 233.

UPPERSIDE dark brown: the outer margin paler, traversed by two submarginal lines of dark brown. Anterior wing with two ocelli: one near the apex small; the other, below it, large; posterior wing, with one ocellus near the middle of the outer margin; all black with white pupils and rufous borders.

UNDERSIDE rufous, underlaid with dark brown; both wings crossed beyond the middle by a band of pale yellow (interrupted where the wings meet) followed by a broad band of purple-brown, marked with numerous ocelli; five on the anterior wing, the fifth much the largest; on the posterior wing seven, the first and fourth largest; all with white pupils and rufous borders: the outer margins of both wings broadly grey and rufous, traversed by three dark-brown undulating lines.

Expan. $2\frac{3}{10}$ in. Hab. East India.

In the Collections of W. W. Saunders and W. C. Hewitson.

MYCALESIS MESTRA. 2, 3.

UPPERSIDE. Female dark brown. Anterior wing crossed beyond the middle by a narrow band of white, followed by two ocelli; one near the apex minute, the other larger; two submarginal black lines, the margin white. Posterior wing crossed beyond the middle by an indistinct band (seen through); followed by two ocelli towards the anal angle, the one nearest the angle minute, oval, and ill-formed: a submarginal line of rufous-white: the margin broadly white, traversed by a very fine black line.

Faint Jan 1/1882.

UNDERSIDE rufous, the basal half undulated with dark brown; crossed beyond the middle by a continuous band of white, followed by a broad band of purple-brown marked with several ocelli: on the anterior wing by three; the first (which is minute) and second near the apex; the third (larger) beyond the middle: on the posterior wing by five, three of them near the apex (the third indistinct), two near the anal angle, large, all with pupils of white and rufous border; both wings with white and rufous submarginal bands; the margins white.

Expan. $2\frac{8}{10}$ in. Hab. East India, Deccan.

In the Collection of W. C. Hewitson.

MYCALESIS SAFITZA. 4.

M. Safitza, Hewitson, *Gen. Diur. Lep. Pl.* 66, p. 394 (*upperside*).

UPPERSIDE dark brown, the outer margins paler: apex of anterior wing rufous, with a minute ocellus.

UNDERSIDE dark brown to the middle, where the wings are crossed by a narrow band of lilac-white, followed by numerous ocelli: two on the anterior wing, the first minute, the other large: seven on the posterior wing, the first, fourth, and fifth largest; all with white pupils and rufous borders: those on the posterior wing inclosed by a tortuous line of lilac: the outer margins rufous, traversed by three black lines.

Expan. $1\frac{9}{10}$ in. Hab. Africa.

In the Collections of W. W. Saunders and W. C. Hewitson.

MYCALESIS MALSARA. 5, 6.

M. Malsara, Moore, *Cat. Lep. E. I. C. Mus.* p. 231.

UPPERSIDE rufous-brown. Anterior wing crossed beyond the middle by a band of white, followed by three blind ocelli (the middle one minute): posterior wing with one ocellus (indistinct): the outer margins of both wings rufous-white, traversed by two black lines.

UNDERSIDE rufous, undulated; crossed beyond the middle by a band of yellow-white; interrupted where the wings meet, followed by a broad band of dark brown, with numerous ocelli: on the anterior wing five, the second and fifth largest: on the posterior wing seven, the first, second, and fifth largest, most of them with white pupils, and rufous borders, the whole inclosed on each wing by a tortuous line of lilac; the margins broadly white, traversed by two black lines.

Expan. $2\frac{1}{10}$ in. Hab. Darjeeling.

In the Collection of W. C. Hewitson.

SAENIDIAE.
MYALUS II



Myalus myalus

Myalus myalus

Myalus myalus *Myalus myalus*

Myalus myalus *Myalus myalus*

SATYRIDÆ.

MYCALESIS. II.

MYCALESIS DORICUS. ♀ 7, 10.

♂ *Satyrus Dorycus*, *Boisd. Voy. Astrolabe*, p. 152. *S. Duponchelli Guér. Voy Coquil*, Pl. 17, f. 3. *M. Getulia Felder Wien. Ent. Monats*, Vol. III., p. 404.

UPPERSIDE. Female dark brown. Anterior wing with two ocelli, with white pupils; a band of orange near the outer margin from the middle to the inner margin; two indistinct submarginal black lines. Posterior wing, with the outer half orange, marked with five ocelli, some only, with white pupils, followed by three submarginal black lines.

UNDERSIDE orange-yellow, clouded on the basal half; both wings crossed near the base by a waved rufous line; crossed at the middle by a band of rufous-brown, followed by several ocelli; two on the anterior wing, large and separate; five on the posterior wing, the second smallest; both wings with two submarginal brown lines.

The Male differs chiefly in having only three much smaller ocelli on the posterior wing: on the underside the sexes are alike.

Expan. $2\frac{6}{10}$ in. Hab. Dorey.

In the Collections of W. W. Saunders and W. C. Hewitson.

MYCALESIS MESSENE. 8, 9.

UPPERSIDE. Female rufous-orange, clouded from the base nearly to the middle; the outer margin broadly dark brown: anterior wing with two ocelli, one near the apex small and indistinct, the other large, each with light-blue pupils: posterior wing with five, the third and fourth larger than the others; the pupils white, the borders rufous.

not seen 1. 78

UNDERSIDE, with the basal half rufous-brown; both wings crossed at the middle by a *broad band of pale yellow*, followed by a broader band of lilac, marked with numerous ocelli; four on the anterior wing, the second and third small: six on the posterior wing, crowded together, of nearly equal size, except the fifth, which is largest, all with pupils of blue and rufous margins; both wings with a submarginal band of pale yellow; the margins rufous.

The male does not differ, except that it is smaller; that the upper side has the margins of a darker brown, the base less clouded, and the underside of the posterior wing crossed at the middle by a *narrow band of lilac*.

Expan. ♂ 2, ♀ $2\frac{2}{10}$ in. Hab. Batchian.

In the Collections of W. W. Saunders and W. C. Hewitson.

MYCALESIS MUCIA. 11, 12.

UPPERSIDE. Female brown. Anterior wing with the base rufous, succeeded by a broad irregular band of orange-yellow; the outer half dark brown, with three ocelli; two near the apex, one of which is very minute; all with pupils of light blue: posterior wing rufous-brown, with three ocelli, the middle one largest and most distinct; both wings with a submarginal band and line of black.

UNDERSIDE, with the basal half white, slightly tinted with yellow; both wings crossed at the middle by a broad irregular band of dark rufous-brown, curved on its outer border, so as to make room for the ocelli, which follow; from this band to the outer margin rufous-grey, with two submarginal waved brown lines: anterior wing with two large ocelli: posterior wing with four, the outer one smallest; all with white pupils and rufous borders.

The male differs only in being smaller, of a much darker brown above, with one ocellus only on the posterior wing: on the underside the sexes are alike.

Expan. ♂ $2\frac{4}{10}$, ♀ $2\frac{6}{10}$ in. Hab. Dorey.

In the Collections of W. W. Saunders and W. C. Hewitson.

The insects of this and the preceding plate differ so much in their general appearance and colour that I have examined them carefully, wishing to find some character by which to separate them, but without success. Dr. Felder has, however, done so, but without sufficient foundation upon which to establish his new genus: first, the somewhat longer and narrower cell; and, secondly, the hirsute eyes. *M. Malsara* has a cell of the same form, and more than two-thirds of the species of *Mycalesis* have hairy eyes. It is a character of no value in this genus, except to distinguish species, some of those which are the most nearly allied being with or without hirsute eyes.

SATYRIDÆ.
MYCALESIS III.



W C Hewitson, del et lith 1862

Printed by Walter & Cohn

- | | |
|-------------------------|-------------------------------|
| 13 MYCALESIS DEIANIRA | |
| 14. MYCALESIS MEGAMEDE | 16. MYCALESIS PHIDON |
| 15. MYCALESIS PERDICCAS | 17 18. 19 MYCALESIS DEXAMENUS |

S A T Y R I D Æ.

MYCALESIS. III.

MYCALESIS DEIANIRA. 13.

UPPERSIDE. Male rufous-brown, brighter towards the outer margin of the posterior wing. Anterior wing with the apical half dark brown; posterior wing with the outer margin brown.

UNDERSIDE rufous, clouded from the base to the middle, chiefly on the anterior wing: both wings crossed before the middle by an indistinct rufous band; at the middle by a band of rufous-brown, followed on each wing by two large black ocelli, with the pupils white, the iris rufous, bordered with red brown, and again above them (chiefly on the anterior wing) with lilac-white: each followed by an *undulating rufous band at a distance from the margin*; a submarginal line, and the outer margin dark brown; posterior wing with a third small ocellus near the anal angle.

Expan. $2\frac{1}{2}$ in. Hab. Tondano.

In the Collection of A. R. Wallace.

MYCALESIS DEXAMENUS. 17, 18, 19.

UPPERSIDE. Male (fig. 17) rufous-brown, paler near the outer margin of the posterior wing. Anterior wing, with the costal margin, and more than the outer half brown, with an indistinct ocellus between the first and second median nervules: the outer margin and two indistinct submarginal lines brown. Posterior wing with an indistinct undulating band of light brown near the outer margin, followed by two sub-marginal dark brown lines.

UNDERSIDE rufous, clouded to the middle: both wings crossed at the middle by a curved rufous-brown band, followed on each wing by two large distinct black ocelli, the pupils white, the iris rufous, bordered with dark brown and again above with lilac-white: two slightly-curved submarginal black lines. Posterior wing with a third minute ocellus near the anal angle.

Female (fig. 18) like the male, except that the upperside is paler; that the underside has the submarginal lines zig-zag; that the posterior wing has a minute blind ocellus between the two large ocelli, and is crossed near the base by an indistinct rufous line.

Var. Female (fig. 19). Anterior wing crossed at the middle by a broad band of rufous-yellow; a second ocellus near the apex; posterior wing with the underside rufous-yellow; both wings crossed near the base by a curved rufous line; the ocelli of the anterior wing placed further from the central rufous band.

Expan. $2\frac{1}{10}$ in. Hab. Tondano. Var. Celebes.

In the Collections of W. W. Saunders and W. C. Hewitson.

The male of this species and of *Deianira* are much alike; their chief distinction consists in the position of the submarginal band on the underside of the anterior wing.

MYCALESIS MEGAMEDE. 14.

UPPERSIDE. Male, light-brown. Anterior wing with its centre dark brown : the outer margin towards the anal angle rufous, traversed by a black line. Posterior wing with the outer margin rufous, traversed by a black line : the margin brown.

UNDERSIDE rufous-brown ; both wings undulated with darker brown from the base to the middle ; crossed at the middle by a continuous narrow band of lilac-white, followed on the anterior wing by six ocelli (the first four minute) ; on the posterior wing by a curved band of seven ocelli, the first, fourth, and fifth larger than the others ; all black, the pupils white, the iris rufous, bordered with black and again with white : a submarginal pale rufous band, traversed by a black line : the margin rufous.

Expan. $1\frac{9}{10}$ in. Hab. Ternate.

In the Collection of W. C. Hewitson.

MYCALESIS PERDICCAS. 15.

UPPERSIDE. Male, brown. Anterior wing with two ocelli : one near the apex, small ; the other below it, large : both black, with white pupils and rufous iris. A tuft of hair near the inner margin. Posterior wing with one indistinct black ocellus, the pupil white ; the outer margin of both wings rufous, traversed by two black lines ; the cilia white.

UNDERSIDE light brown ; both wings crossed at the middle by a narrow band of lilac-white, followed on the anterior wing by the ocelli as above ; on the posterior wing by a curved band of seven ocelli ; the second, third, and seventh, minute : the first, fourth, and sixth, somewhat larger : the fifth the largest : all black, with pupil white, and iris rufous ; the outer margin white, traversed by two black lines.

Expan. $1\frac{9}{10}$ in. Hab. Japan.

In the Collection of W. C. Hewitson.

MYCALESIS PHIDON. 16.

UPPERSIDE. Male rufous-brown : a band of brown and a black line near the outer margins ; anterior wing with the costal margin and apex broadly dark brown, marked with two ocelli : one near the apex small, and indistinct : the other below it large, oval, with above it a band of dark brown ; posterior wing with two ocelli of different sizes ; all the ocelli black, with pupil white and iris rufous, bordered with black.

UNDERSIDE orange-yellow ; both wings crossed near the middle by a rufous-brown band, broken where the wings meet, followed on the anterior wing by the ocelli as above : on the posterior wing by six ocelli ; the second, third, and sixth minute (the third mis-shapen) : the first and fourth larger : the fifth largest ; both wings with a zig-zag rufous-brown band near the outer margin, and a submarginal black line : the margin rufous.

Expan. $1\frac{8}{10}$ in. Hab. Aru.

In the Collections of W. W. Saunders and W. C. Hewitson.



S A T Y R I D Æ.

MYCALESIS. IV.

MYCALESIS ASOPHIS. 20, 21.

UPPERSIDE. Male, rufous-brown with two submarginal lines of darker brown. Anterior wing crossed at the middle by a curved band of brown, followed by two black ocelli, with pupils of white; one near the apex, small, the other large, with rufous iris; posterior wing with two black ocelli: one large, with rufous iris and white pupil, the other very minute.

UNDERSIDE rufous-brown from the base to the middle, crossed by a narrow rufous band; the outer half of both wings grey, with two submarginal zig-zag black lines; anterior wing with four ocelli in pairs, three small, the other (lowest down), large; posterior wing with six ocelli: the first large, the three following small, the fifth larger, the sixth (at the anal angle) minute: all black, with pupils of white, and rufous iris, bordered with brown.

Expan. $1\frac{9}{10}$ in. Hab. Mysol.

In the Collections of W. W. Saunders and W. C. Hewitson.

MYCALESIS DAIDIS. 22.

UPPERSIDE. Male, rufous-brown. Anterior wing with one ocellus; posterior wing with two ocelli, all towards the middle of the outer margin: all black, with iris rufous, and pupil white.

UNDERSIDE rufous-brown; both wings crossed at the middle by a band of darker brown; both with the outer margin and a line near it black; anterior wing with three ocelli, the first two minute, the third large; posterior wing with six ocelli, the first large, the second and third minute, fourth and fifth large, the sixth (near the anal angle) minute: all black, with white pupils, the iris rufous-yellow, margined with dark brown.

Expan. $1\frac{8}{10}$ in. Hab. Ceram.

In the Collections of W. W. Saunders and W. C. Hewitson.

MYCALESIS DINICHE. 23.

UPPERSIDE. Male, brown; both wings crossed beyond the middle, and again near the outer margin by a band of darker brown, and a submarginal black line; anterior wing with one indistinct ocellus towards the middle of the outer margin; posterior wing with five ocelli: the first two indistinct and small, the third (the largest) and the two following with pupils white, the iris rufous, bordered with dark brown.

UNDERSIDE rufous, brighter towards the anal angle of the posterior wing; both wings crossed near the base, and again at the middle by a rufous band; both with the outer margin and two parallel lines black, the inner line of the anterior wing zig-zag; anterior wing with four ocelli: three near the apex small, the other large; posterior wing with seven ocelli of nearly equal size; all black, with white pupils, the iris rufous, bordered with black, and again with rufous-yellow.

Expan. $1\frac{1}{2}$ in. Hab. Java.

In the Collection of W. C. Hewitson.

MYCALESIS JOPAS. 24.

UPPERSIDE. Male, brown; the outer margin grey, traversed by two dark brown lines: the cilia grey-white.

UNDERSIDE grey-brown; both wings crossed beyond the middle by a narrow band of white and by four submarginal lines of white and black alternately. Anterior wing with four ocelli touching each other: the two apical ocelli smaller than the others; posterior wing with five ocelli touching: the middle ocellus out of line, and less than the others; all black, with large pupils of white, the iris rufous, bordered with brown, and again with white.

Expan. $2\frac{2}{10}$ in. Hab. East India.

In the Collection of W. C. Hewitson.

Nearly allied to *M. Hesione* of Cramer, of which it is, probably, only a variety.

MYCALESIS ANAXIAS. 25, 26.

UPPERSIDE. Male, brown; anterior wing crossed near the apex by an oblique band of white.

UNDERSIDE dark brown from the base to beyond the middle (its border on the anterior wing angular), followed by a broad margin clouded with lilac and grey, and rufous-brown: traversed by three lines of dark brown: the cilia lilac; anterior wing with the white band as above, and three small ocelli, two above, one below the band; posterior wing with five ocelli; all black, with white pupils, the iris rufous, and indistinct.

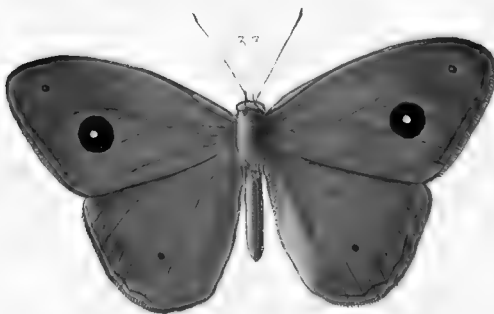
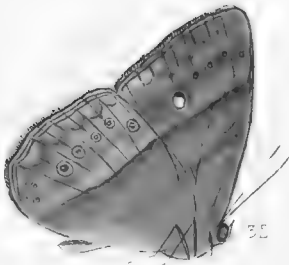
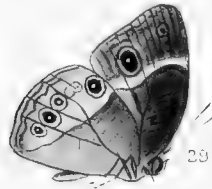
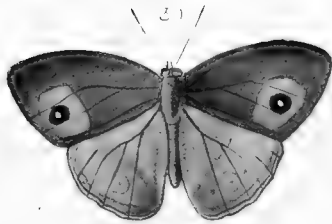
Expan. $2\frac{1}{10}$ in. Hab. Neilgheries.

In the Collections of W. W. Saunders and W. C. Hewitson.

Believing that all names which are not necessary for its elucidation, serve only to retard the study of natural history, and to disgust those who might, if more simply constructed, make it their pursuit. I have retained this species in the genus *Mycalesis*, although the first disco-cellular nervure of the posterior wing is very singularly placed, taking its rise from the subcostal nervure near the base of the wing, and, instead of crossing the wing transversely or obliquely, running down longitudinally, until it meets the second disco-cellular nervure at the usual place.

SATYRIIDÆ.

MYCALESIS V



W C Hewitson del et lith

M&N Hannart Imp

27. 28 MYCALESIS MAIANEAS.

29. 30. MYCALESIS MYNOIS

31. MYCALESIS DINON

32 33. MYCALESIS MNASICLES

S A T Y R I D Æ.

MYCALESIS. V.

MYCALESIS MAIANEAS. ♀ 27, 28.

UPPERSIDE. Male dark brown; the outer half nearly of the anterior wing, and the outer margin of the posterior wing, rufous brown. Anterior wing with a tuft of hair near the inner margin; the margins of both wings where they meet silvery white.

UNDERSIDE dark brown to the middle, rufous brown beyond: the outer margin and two submarginal lines dark brown. Anterior wing with three ocelli, two near the apex minute and touching, the third below the middle, large; posterior wing with seven, the first (touching the costal margin), the fourth and fifth large, the rest smaller, all black, with pupil white and iris rufous orange.

Female like the male, except that it has an orange band on both sides of the anterior wing, and has but one ocellus, near the apex, on the underside of the anterior wing.

Exp. ♂ $1\frac{9}{10}$, ♀ $2\frac{2}{10}$ inch. Hab. Malacca and Sarawak.

In the Collection of W. C. Hewitson.

MYCALESIS MYNOIS. 29, 30.

UPPERSIDE. Male brown. Anterior wing dark brown, with a large rufous spot beyond the middle, enclosing a black ocellus. Posterior wing with the basal half and outer margin rufous brown: the outer half rufous orange, with some very indistinct ocelli: the outer margin and two submarginal lines dark brown.

UNDERSIDE brown. Both wings crossed at the middle by a common band of white, both with the outer margin and two submarginal lines dark brown. Anterior wing with two ocelli, one near the apex minute, the other large. Posterior wing rufous beyond the band, with seven ocelli, the second and third (though very minute) of perfect form.

Exp. $1\frac{7}{10}$ inch. Hab. Timor.

In the Collection of W. C. Hewitson.

MYCALESIS DINON. ♀ 31.

Mycalesis Dexamenus, var. ♀ Hewitson, *Ex. But. Vol. III. Fig. 19.*

UPPERSIDE. Male rufous brown. Anterior wing crossed at the middle by a broad band of orange yellow: the wing beyond the band dark brown: the ocelli scarcely visible. Posterior wing with the ocelli and submarginal lines seen through.

UNDERSIDE rufous yellow: both wings crossed at the middle by a twice-curved rufous band, both with the outer margin and two submarginal lines (the inner line zigzag) of brown. Anterior wing with two large ocelli, the lower one broadly bordered with yellow. Posterior wing yellow below the middle, with three ocelli, two large and one small.

Female does not differ from the male, except in size, and in the broader band of the anterior wing.

Exp. ♂ $2\frac{1}{10}$, ♀ $2\frac{4}{10}$ inch. Hab. Macassar.

In the Collections of W. W. Saunders and W. C. Hewitson.

When I believed that the female of this species might be a variety of *M. Dexamenus*, I had not seen the male.

MYCALESIS DORA.

Mycalesis Dejanira. Hewitson, *Ex. But. Vol. III. Fig. 13.*

When I named this species, I considered that it was sufficiently different from *Dejanira*, and so it is with us, though not so on the Continent. I have therefore re-named it.

MYCALESIS MNASICLES. 32, 33.

UPPERSIDE. Male rufous brown; both wings with a submarginal black line. Anterior wing with two ocelli, one at the apex minute, the other below the middle, very large. Posterior wing with one indistinct ocellus and a submarginal band of indistinct lunular spots.

UNDERSIDE with the basal half rufous; both wings crossed before the middle, and at the middle by common rufous brown narrow bands: both with two black lines near the outer margin and a submarginal zigzag rufous band. Anterior wing with five ocelli, the first four minute, the fifth larger, and marked with a large white pupil. Posterior wing with seven small ocelli, the first and fifth the largest.

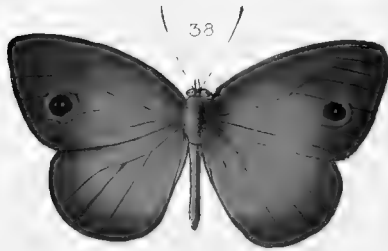
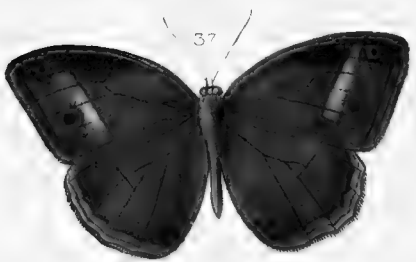
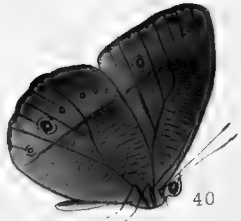
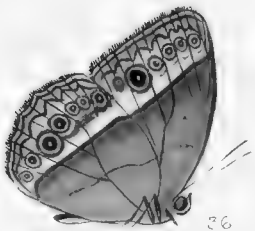
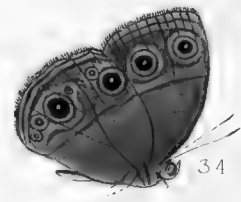
Female does not differ, except in size.

Exp. ♀ $2\frac{1}{2}$, ♂ 3 inch. Hab. Sumatra.

In the Collections of W. W. Saunders and W. C. Hewitson.

SCATRIDIIDAE

MYCALESIS VI



W. Cresson del., et lith.

M. & N. Hanhart Imp.

54 MYCALESIS MYCAS

35 MYCALESIS LALASSIS.

38. 39. MYCALESIS OROATIS

MYCALESIS ORSEIS

40 MYCALESIS ONATAS

S A T Y R I D Æ.

MYCALESIS. VI.

MYCALESIS MILYAS. 34.

UPPERSIDE. Male rufous brown, palest at the apex and outer margin of the anterior wing.

UNDERSIDE rufous brown. Both wings crossed at the middle by a common narrow band of grey, both with two submarginal bands and circles round the ocelli of the same colour. Anterior wing with two large ocelli. Posterior wing with six, the first and fourth large, the rest minute.

Exp. $1\frac{6}{10}$ inch. Hab. White Nile.

In the Collection of W. C. Hewitson.

MYCALESIS LALASSIS. 35.

UPPERSIDE. Male rufous brown, paler at the outer margins, which have near them a line of brown. Anterior wing with a minute white spot opposite the lowest ocellus of the underside.

UNDERSIDE rufous brown. Both wings crossed at the middle by a narrow band of lilac white: both with two submarginal lines, and a very fine line which borders the ocelli (not singly, but all together), lilac white. Anterior wing with four ocelli, the first two touching, the fourth the largest. Posterior wing with seven, the second, third, and sixth minute.

Exp. $1\frac{9}{10}$ inch. Hab. Gilolo.

In the Collections of W. W. Saunders and W. C. Hewitson.

Nearly allied to *M. Jopas* (Ex. But. fig. 24), from which it differs in the number of ocelli on the posterior wing as well as in being without the line of *silvery* white which surrounds them, which silvery appearance I have unfortunately omitted to notice both in the drawing and description of *M. Jopas*.

MYCALESIS ORSEIS. 36, 37.

UPPERSIDE. Male rufous brown, tinted with lilac. Both wings crossed beyond the middle by an indistinct band of lilac (scarcely seen on the posterior wing), both with two submarginal lines of rufous brown. Anterior wing with two or three very indistinct ocelli.

UNDERSIDE. Both wings with the basal half rufous, crossed by a line of darker brown: both crossed at the middle by a broad common band of lilac white: both beyond the band yellow (lilac near the apex), with the outer margin and two submarginal lines (the inner line zigzag) brown. Anterior wing with six ocelli, the first four of equal size, the fifth large, the sixth minute, blind. Posterior wing with seven ocelli, the fourth and sixth largest; the irides bright orange.

Exp. $2\frac{1}{10}$ inch. Hab. Sumatra.

In the Collections of W. W. Saunders and W. C. Hewitson.

MYCALESIS OROATIS. 38, 39.

UPPERSIDE. Male rufous. Anterior wing with the costal margin and the apical half dark brown, with two ocelli, one near the apex, small and indistinct, the other large. Posterior wing with the outer margin broadly brown.

UNDERSIDE dark brown, paler beyond the middle. Both wings crossed at the middle by a narrow common band of lilac: both with the outer margin and two submarginal lines (the inner line much curved) brown. Anterior wing with two large ocelli. Posterior wing with seven, the first four of equal size (the fourth immature), the fifth large.

Exp. 2 inch. Hab. Java.

In the Collection of W. C. Hewitson.

This is nearly allied to *M. Tagala*, of Felder, but differs from it and the other species in this genus by having the second branch of the subcostal nervure at a distance beyond the end of the cell.

MYCALESIS ONATAS. 40.

UPPERSIDE. Male rufous brown. Anterior wing with the apical half dark brown: one ocellus below the middle, the usual apical ocellus represented on both sides by a minute white spot. Posterior wing with two blind ocelli.

UNDERSIDE rufous brown, undulated with darker colour. Both wings crossed beyond the middle by a straight rufous brown line. Anterior wing with the ocellus as above, but smaller. Posterior wing with six ocelli, five minute, the sixth the largest.

Exp. 2 inch. Hab. Neelgherries.

In the Collection of W. C. Hewitson.

This species is very near to *Satyrus Adolphei*, of Guérin (*Voyage Dellessert*, p. 76), of which it is probably only a variety, but since his descriptions are always so full and accurate, and he does not mention the undulations of the underside, I have come to the conclusion that it is distinct.

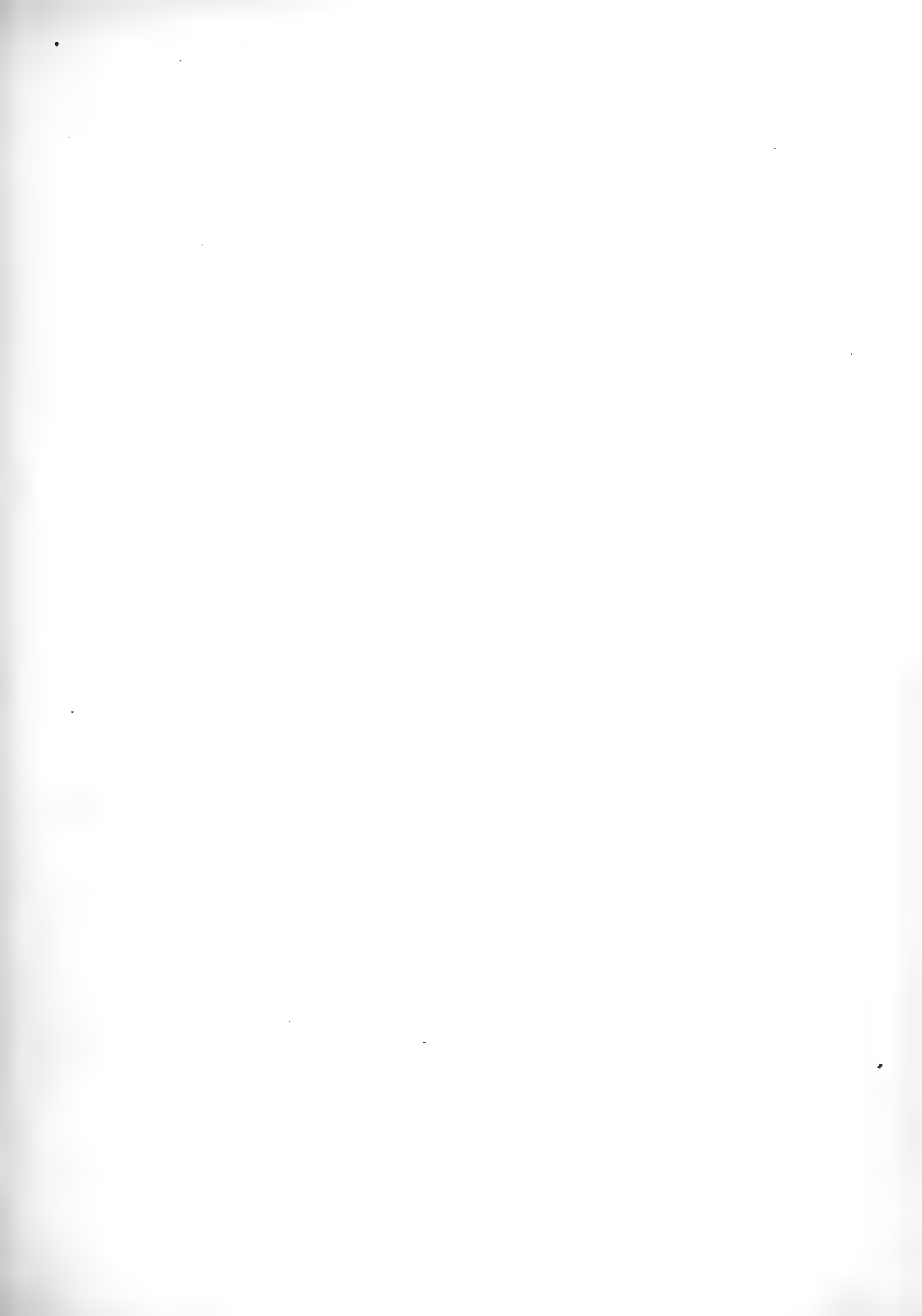
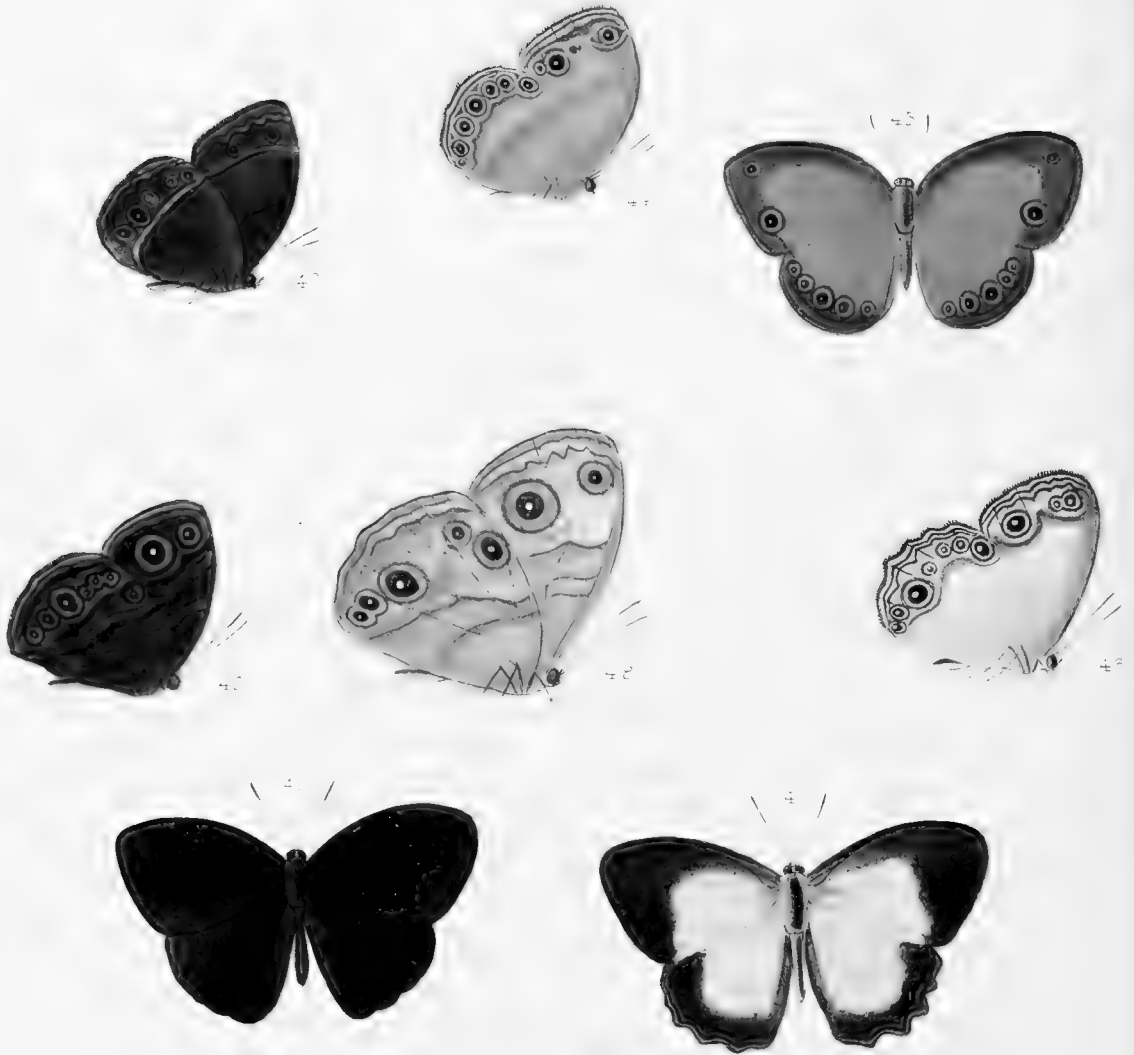


PLATE LXXV.
MYCALENIS . VII.



Printed by M & M Hanhart

PLATE LXXV.

MYCALENIS . VII.

MYCALENIS . VII.
MYCALENIS . VII.

MYCALENIS . VII.
MYCALENIS . VII.

S A T Y R I D Æ.

MYCALESIS. VII.

MYCALESIS ELIONAS. 41, 42.

UPPERSIDE. Male, purple-brown. Anterior wing with a minute white spot near the apex.

UNDERSIDE dark brown, with indistinct transverse bands of lilac. Anterior wing with two ocelli: posterior wing with seven ocelli, the first near the middle of the costal margin, the fifth of large size, the other six small, all black, the irides rufous, the pupils white.

Expan. $1\frac{9}{10}$. Hab. Old Calabar.

In the Collection of W. C. Hewitson.

MYCALESIS ARAMIS. 43.

UPPERSIDE. Male, dark rufous-brown. Anterior wing with one rather large ocellus pupilled with white; posterior wing with one, small and obscure; both wings with a submarginal black line.

UNDERSIDE rufous-brown, crossed near the base of each wing by an obscure band of darker colour; both wings crossed beyond the middle by a common band of lilac, by a zig-zag band of the same colour, and by a submarginal band of black; anterior wing with two small ocelli; posterior wing with six, the fourth larger than the others, all (except the third on the posterior wing, which is rufous) black, the irides obscurely rufous, the pupils minute, white.

Expan. $1\frac{1}{2}\frac{7}{10}$ inch. Hab. Philippine Islands.

In the Collection of W. C. Hewitson.

MYCALESIS ELIASIS. 44, 45.

UPPERSIDE. Male, orange. Both wings broadly bordered with rufous-brown, both with a submarginal brown line; anterior wing with two ocelli: posterior wing with six, the third and fourth largest, all black; the irides orange, the pupils white.

SATYRIDÆ—MYCALESIS.

UNDERSIDE orange yellow; both wings crossed by two linear rufous bands; both with a broad outer margin of rufous brown; anterior wing with four ocelli (the third blind); posterior wing with seven, all black; the irides orange, the pupils white, all bordered with brown and again with white; both wings with four submarginal lines alternately brown and white.

Expan. $1\frac{9}{10}$ inch. Hab. Congo.

In the Collection of the British Museum.

MYCALESIS ASOCHIS. 46, 47.

UPPERSIDE. Male, dark brown, the basal half of both wings white.

UNDERSIDE white, the margins pale brown: each wing crossed beyond the middle by a curved band of pale brown, each with two submarginal curved black lines; anterior wing with three ocelli, two near the apex small, one below larger; posterior wing with seven ocelli, the first large, the second, third, and fourth small, the fifth largest.

Expan. 2 inch. Hab. Old Calabar.

In the Collection of W. C. Hewitson.

MYCALESIS XENEAS. 48.

UPPERSIDE. Female, pale rufous-brown with two submarginal lines of darker brown. Anterior wing crossed beyond the middle by a broad band of white with two obscure ocelli.

UNDERSIDE rufous-brown. Anterior wing crossed near the base by a band of paler colour; the outer half white, with two large ocelli; posterior wing crossed near the base by an indistinct band of paler colour: at the middle by a band of white: beyond the middle by two bands of white surrounding the ocelli, which are five in number, and near the outer margin by a dentate band of the same colour; the ocelli of both wings black, the pupils white, the irides orange-yellow margined with brown.

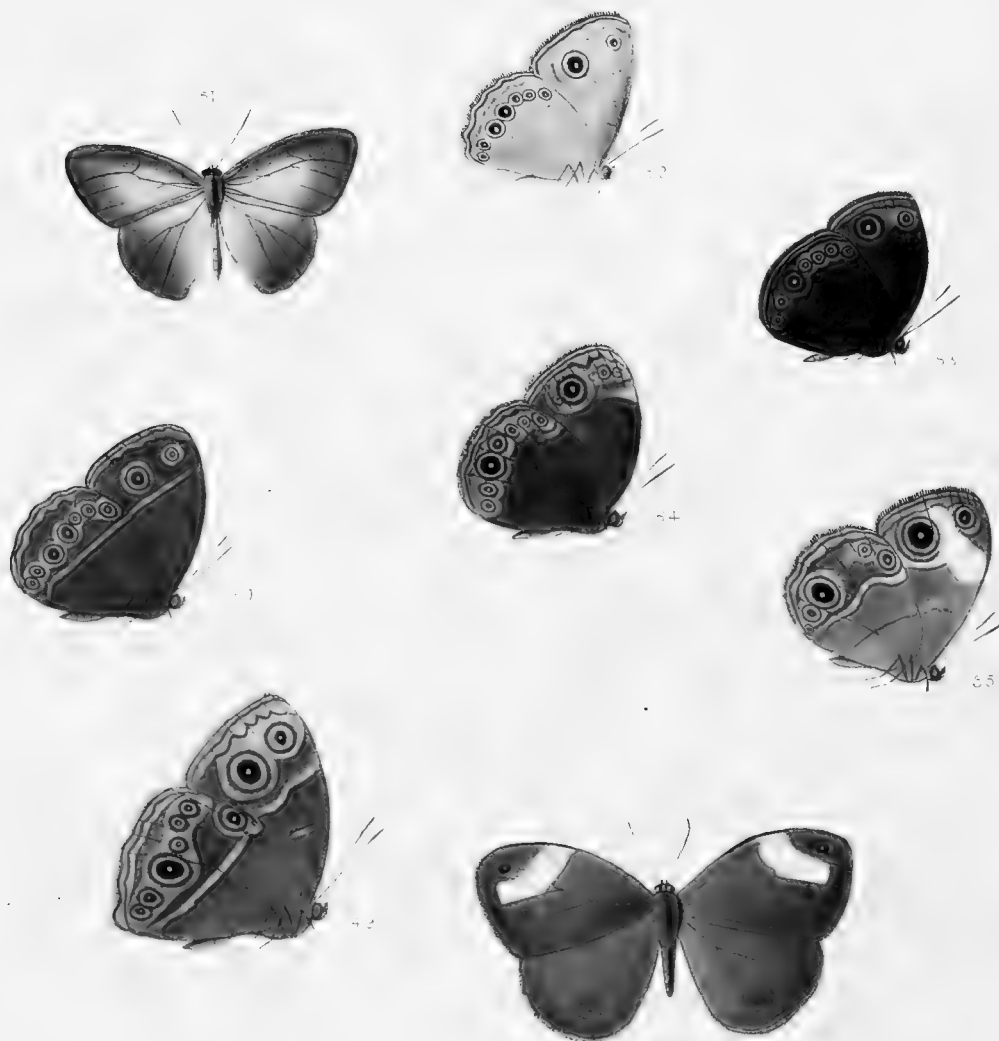
Expan. $2\frac{1}{2}$ inch. Hab. Old Calabar.

In the Collection of W. C. Hewitson.

The only example of this butterfly which I have seen is much worn and most probably much paler than if it was fresh.

SATYRIDÆ

MYCALESIS VII.



W. C. Hewitson del et lith 1866

M. & N. Harber imp

47 MYCALESI. KENAS

50. MYCALESI RHANON

48 MYCALESI CANON

51 52. MYCALESI RÆSACES.

53 MYCALESI SCIATHIS

SATYRIDÆ.

MYCALESIS VIII.

MYCALESIS XENEAS. 49.

♀ *Hewitson's Exotic Butterflies, Vol. III. fig. 48.*

UPPERSIDE. Male, dark brown. Anterior wing with one indistinct ocellus.

UNDERSIDE rufous-brown. Both wings crossed at the middle of a narrow lilac band; both with a submarginal line and the margin black. Anterior wing with a short band of lilac within the cell, with two large ocelli, and below them a zigzag band of brown; posterior wing with six ocelli placed in an unusual position, one near the middle of the costal margin, two together considerably below it, and three (the first of which is larger than all the others) near the anal angle; all the ocelli black, pupilled with white, the irides rufous, bordered with brown, and again by lilac.

Expan. $2\frac{2}{10}$ inch. Hab. Old Calabar.

In the Collection of W. C. Hewitson.

MYCALESIS RHACOTIS. 50.

UPPERSIDE. Male, rufous-brown. Posterior wing with a submarginal line of dark brown.

UNDERSIDE rufous-brown. Both wings crossed at the middle by a band of lilac bordered inwardly with brown, both with a marginal band of lilac, its inner border sinuated and traversed by a line of dark brown; the outer margin also brown. Anterior wing with two ocelli (the lower one much the largest); posterior wing with seven ocelli; the first, fourth, and fifth large, the other four much smaller; all black with pupils of white and rufous irides bordered with brown, and again by lilac.

Expan. $1\frac{8}{10}$ inch. Hab. Old Calabar.

In the Collection of W. C. Hewitson.

In its general appearance this species most nearly resembles *M. Manipa*.

MYCALESIS RÆSACES. 51, 52.

UPPERSIDE. Male, rufous-brown: the middle of the anterior wing, and the costal margin of the posterior wing, paler.

UNDERSIDE white, striated and clouded with rufous-brown. Both wings crossed at the middle by a zigzag rufous-brown line. Anterior wing with two ocelli (the apical one minute and indistinct); posterior wing with seven; the fourth and

Pub. Jan. 2, 1865.

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fifth largest; all black with white pupils and rufous irides bordered with white. Posterior wing with a marginal band of white traversed by a line of brown; the outer margin brown.

Female (fig. 52) like the male, except that the anterior wings are much broader, and of a uniform rufous-brown; that the underside is more clouded with brown; and that the anterior wing has a zigzag line outside of the ocelli.

Expan. $1\frac{6}{10}$ inch. Hab. Old Calabar.

In the Collection of W. C. Hewitson.

The male of this species has more resemblance in form to the genus *Hypocista* than it has to *Mycalesis*.

MYCALESIS SANAOS. 53, 54.

UPPERSIDE. Male, uniform dark lilac brown.

UNDERSIDE dark lilac brown, paler towards the outer margins. Both wings with the margin and two submarginal lines of dark brown. Anterior wing with two ocelli; posterior wing with seven, the fifth larger than the rest; all black with white pupils and rufous irides bordered with dark brown, and again with lilac.

Female like the male, except that it is rufous-brown on both sides; that the anterior wing has on the upperside a space of paler colour beyond the middle on which are two blind ocelli; that the inner submarginal band on the underside of the anterior wing is zigzag; and that there are three or four imperfect minute ocelli on the same wing.

Expan. ♂ $1\frac{1}{2}$, ♀ $1\frac{7}{10}$ inch. Hab. Old Calabar.

In the Collection of W. C. Hewitson.

MYCALESIS SCIATHIS. 55, 56.

UPPERSIDE. Male, rufous-brown slightly tinted with lilac. Anterior wing with one apical ocellus.

UNDERSIDE rufous. Both wings crossed by a narrow brown band before the middle, by a second tortuous band at the middle bordered outwardly with lilac; both with the outer margin and two submarginal lines of brown. Anterior wing with two ocelli; posterior wing with four, two of which are small, one of them indistinct.

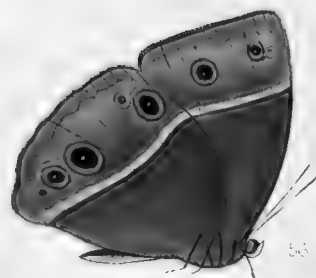
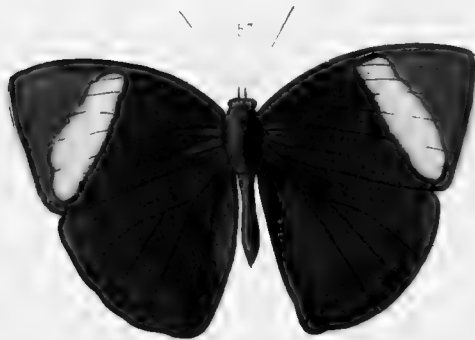
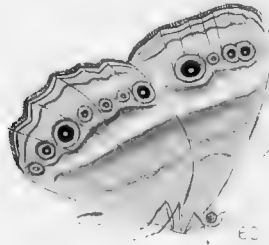
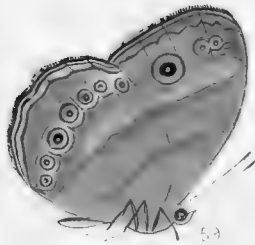
Female like the male, except that the anterior wing on the upperside is crossed beyond the middle by a short oblique band of white, and that the central band on the underside is margined outwardly with white.

Expan. ♂ $1\frac{13}{20}$, ♀ $1\frac{9}{20}$ inch. Old Calabar.

In the Collection of W. C. Hewitson.

SATYRIDAE.

MYCALESIS IX



1891 July 21st

M & N Hanhart imp

MYCALESIS MENTIAS

MYCALESIS MAREOTIS

59 MYCALESIS MARGITES

MYCALESIS MACRONES

61 62 MYCALESIS MANDANES

S A T Y R I D Æ.

MYCALESIS. IX.

MYCALESIS MEDONTIAS. 56, 57.

UPPERSIDE. Male dark brown. Anterior wing crossed from the middle of the sub-costal nervure to the anal angle nearly by a broad band of lilac.

UNDERSIDE rufous-brown. Both wings crossed at the middle from the costal margin beyond its middle to a little above the anal angle of the posterior wing by a narrow equal band of pale yellow: both with two submarginal undulated indistinct brown lines. Anterior wing with three ocelli, two of which (one minute) are near the apex: posterior wing with five ocelli, the second and fifth minute: all black, with iris of orange and pupil white.

Exp. $2\frac{9}{20}$ inch. Hab. West Africa. (Gaboön, Ansell.)

In the Collection of W. C. Hewitson.

This species has the appearance of *Idiomorphus*, but is, I think, properly placed here.

MYCALESIS MAREOTIS. 58.

UPPERSIDE. Female rufous-brown. Anterior wing with two ocelli: one near the apex, and the other, which is the largest, between the first and second median nervules. Posterior wing with one ocellus and a submarginal undulated dark brown line: the ocelli black, with rufous iris and pupil of white.

UNDERSIDE rufous-brown. Both wings crossed near the base by an indistinct brown band: both crossed a little beyond the middle by a narrow, equal, slightly-curved band of white, and by a linear undulated submarginal black band bordered with paler colour. Anterior wing pale towards the outer margin, with two ocelli: posterior wing with five ocelli and a minute pale spot: the first and fourth the largest, the second and third nearer the outer margin than the others.

Exp. $2\frac{3}{10}$ inch. Hab. Philippines.

In the Collection of W. C. Hewitson.

MYCALESIS MARGITES. 59.

UPPERSIDE. Female rufous-brown, paler towards the outer margins. Both wings with two submarginal linear bands, the first broad and ill-defined, the other and the outer margin distinctly black. Anterior wing with two ocelli, one minute and scarcely seen near the apex: posterior wing with four ocelli of nearly equal size: all black, with iris rufous bordered with brown and pupil white.

UNDERSIDE orange-rufous. Both wings crossed near the base by a darker

N

band: both crossed at the middle by a broad ochreous band bordered inwardly by darker colour, and near the outer margin by two linear bands. Anterior wing with three ocelli, two near the apex small: posterior wing with seven ocelli of nearly equal size: all black, with orange iris and pupil of white: those of the anterior wing bordered with brown, those of the posterior wing, as well as the outer margin, bordered with grey-white.

Exp. $2\frac{1}{10}$ inch.

In the Collection of W. C. Hewitson.

MYCALESIS MACRONES. 60.

UPPERSIDE. Female rufous-brown. Both wings with the outer margin and a line near it black: both with the bands of the upperside seen through. Anterior wing with three blind ocelli, and a pale, nearly white, space from the middle of the costal margin to the lower ocellus.

UNDERSIDE. Yellow-white, darker between the base and the middle. Both wings crossed by a rufous-brown band near the base, by a broad straight band at the middle, and by two submarginal linear bands of brown. Anterior wing with four ocelli, the third minute: posterior wing with seven, the first and fifth the largest, all black with the iris orange and pupil white, all bordered with brown, and again inwardly by a band of brown. Anterior wing with a second band of brown near the base.

Exp. $2\frac{3}{10}$ inch. Hab. West Africa.

In the Collection of W. C. Hewitson.

MYCALESIS MADNANES. 61, 62.

UPPERSIDE. Male dark brown. Anterior wing with an indistinct black ocellus with white pupil near the apex, paler at the outer margin, and traversed by a black line, two pale subapical spots, one clouded with brown, the other white, bifid. Posterior wing with three tufts of hair, two where the wings meet, and one below the median nervure.

UNDERSIDE rufous-brown, thickly undulated and clouded with dark brown tinted with lilac below the middle, and forming two very irregular bands across both wings: two submarginal lines of brown. Anterior wing with the white spot as above and two ocelli, one near the apex minute: posterior wing with five small ocelli, all black, with orange iris and pupil of white.

Female like the male, except that the white spots of the underside and the costal margin are tinted with orange.

Exp. 2 inch. Hab. Angola (Rogers). Gaboon (Ansell).

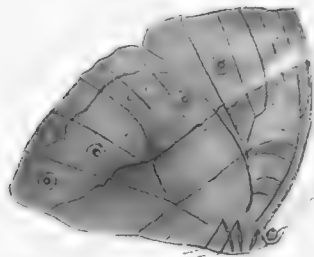


PLATE 1

THE BUTTERFLIES OF THE
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S A T Y R I D Æ.

MYCALESIS AND IDIOMORPHUS.

MYCALESIS SAMBULOS. 63. 64.

UPPERSIDE. Male dark brown. Anterior wing crossed near the apex by a scarcely seen lilac band. Posterior wing with tufts of hair.

UNDERSIDE pale brown clouded and undulated throughout with darker brown. Both wings with a submarginal dark brown line. Anterior wing marked beyond the middle by two black ocelli (a third imperfect) bordered with brown, the iris rufous the pupil white. Posterior wing crossed at the middle by an undulate black linear band followed by six black ocelli (two imperfect) with rufous iris and pupil of white. Female like the male except that the anterior wing is crossed on the upperside by an undefined white band.

Exp. $2\frac{2}{10}$ inch. Hab. Gaboon. (Rogers.)

In the Collection of W. C. Hewitson.

MYCALESIS SANDACE. 65.

UPPERSIDE. Male dark brown. Anterior wing with two black ocelli; one near the apex distinct with rufous iris and pupil of white, the other lower down without a white pupil.

UNDERSIDE rufous-brown undulated throughout with dark brown. Anterior wing with ocelli as above except that the lower one is pupilled with white and is the most distinct of the two. Posterior wing with seven ocelli with rufous iris and white pupil, the second third and fourth indistinct.

Exp. $1\frac{7}{10}$ inch. Hab. Fernando Po. (Rogers.)

In the Collection of W. C. Hewitson.

MYCALESIS TAENIAS. 66.

UPPERSIDE. Male dark brown. Anterior wing with one subapical black ocellus, the iris rufous and pupil white.

UNDERSIDE grey-brown. Both wings crossed before and at the middle by zig-

zag brown linear bands bordered with white; both with two submarginal brown bands. Anterior wing with two ocelli, posterior wing with seven, all with yellow iris and pupil of white; all bordered above by a band of white.

Female (Fig. 66) does not differ except in its paler colour on the upperside.

Exp. $1\frac{6}{10}$ inch. Hab. Gaboon. (Rogers.)

In the Collection of W. C. Hewitson.

MYCALESIS TECHNATIS. 67.

UPPERSIDE. Male dark brown. Anterior wing with two black spots in place of the eyes of the underside.

UNDERSIDE dark rufous-brown. Both wings crossed before and at the middle by transverse bands of dark brown bordered with lilac, both with two submarginal linear black bands. Anterior wing with two ocelli: posterior wing with seven all black with rufous iris and pupil of white, all bordered above and below by a band of lilac.

Female like the male except that it is much paler.

Exp. $1\frac{7}{10}$ inch. Hab. Gaboon. (Rogers.)

In the Collection of W. C. Hewitson.

IDIOMORPHUS SEBETUS. 6. 7.

UPPERSIDE. Male dark brown. Anterior wing crossed obliquely near the apex by an undefined band of lilac-blue.

UNDERSIDE rufous-brown. Both wings crossed by two linear dark brown bands one band before, the other at, the middle. Anterior wing with three bands in the cell: marked towards the outer margin by two indistinct ocelli pupilled with white. Posterior wing with three similar ocelli and a submarginal broken brown band.

Exp. $2\frac{9}{10}$ inch. Hab. Gaboon. (Rogers.)

In the Collection of W. C. Hewitson.

SATYRIDÆ.

IDIOMORPHUS.

IDIOMORPHUS ITALUS. 1, 2, 3.

UPPERSIDE. Male brown, tinted with lilac towards the apex of the anterior wing; a patch of hair before the middle between the median and sub-median nervules. Posterior wing with the anal angle produced, a tuft of hair covering a remarkable spot of peculiar pale brown scales at the end of the discoidal cell.

UNDERSIDE. Rufous, paler towards the margin. Both wings crossed before and at the middle by a transverse common band of brown, both with an indistinct undulated rufous line near the outer margin; the outer margin and fringe brown. Anterior wing with three rufous bands within the cell, with two ocelli, posterior wing with six, the second and third minute: all with a white pupil and orange iris.

Female like the male, except that it is paler and that the anterior wing is crossed beyond the middle by an oblique broad band of white marked by an obscure ocellus.

Exp. ♂ $2\frac{3}{10}$ ♀ $2\frac{6}{10}$. Hab. Old Calabar.

In the Collection of W. C. Hewitson.

2.186:

IDIOMORPHUS ICCIUS. 4, 5.

UPPERSIDE. Male purple brown. Anterior wing crossed beyond the middle by a lilac band (less oblique than in the last species) marked on its inner border by a small black spot; a patch of long hair before the middle between the median and sub-median nervures. Posterior wing with a tuft of hair (as in the species just described) in the discoidal cell.

UNDERSIDE. Grey brown. Both wings crossed before and at the middle by common bands of dark brown; each with a band of brown (not continuous) beyond the middle: both with the margin and a sub-marginal line brown. Anterior wing, with three transverse bands within the cell, with two ocelli: posterior wing with six, the second and third scarcely formed, each with a large white pupil and narrow rufous iris.

Exp. $2\frac{8}{10}$ inch. Hab. Old Calabar.

In the Collection of W. C. Hewitson.

The genus *Idiomorphus* was constructed by M. Doumet to contain an insect of somewhat different contour to those now figured, but since they agree in the form of the palpi and the neuration of the wings, I do not hesitate to place them here. The two species now figured are very similar except in colour, the male of *I. Iccius* having a transverse band as in the female of *Italus*; the first transverse band of the underside is curved in one, in the other straight.

PLATE 10 THE BUTTERFLY



THE BUTTERFLY

THE BUTTERFLY

THE BUTTERFLY

THE BUTTERFLY

E U R Y T E L I D Æ.

MELANITIS.

MELANITIS PENANGA. 1, 4.

Melanitis Penanga, Westwood in Doubleday and Hewitson's *Gen. Diur. Lep.*, p. 405.

UPPERSIDE. Female dark brown; both wings blue-green from the base to the middle. Anterior wing crossed near the apex by a broad band of white. Posterior wing with a large white spot beyond the middle.

UNDERSIDE with the basal half red-brown; the outer half grey, undulated throughout with brown. Anterior wing with a large white triangular spot on the costal margin from its middle to the apex. Posterior wing with an indistinct pale spot near the base.

Expan. $3\frac{1}{10}$ in. Hab. Sumatra.

In the Collections of the British Museum and A. R. Wallace.

The example of this species in the collection of the British Museum, from which Mr. Westwood wrote his description, differs from that now figured. It is without the large white spot on the upperside of the posterior wing, although there is an indication of it; it has, besides, a pale-yellow spot near the middle of the costal margin on the underside of the same wing; this spot, however, is not worth notice as a specific distinction, since some examples of *M. Undularis* are without it.

MELANITIS MEHIDA. 2, 3.

UPPERSIDE. Male dark brown. Anterior wing glossed with brilliant blue, crossed beyond the middle by a band of five light-blue spots.

UNDERSIDE rufous-brown; darker near the base; undulated throughout with grey. Anterior wing with a triangular white spot near the apex. Posterior wing with a white spot near the middle of the costal margin and a minute submarginal black spot dotted with white.

Expan. $2\frac{7}{10}$ in. Hab. Singapore.

In the Collection of A. R. Wallace.

This and *M. Penanga* are very probably the sexes of one species.

MELANITIS ESACA. 5.

Melanitis Esaca, Westwood in Doubleday and Hewitson's *Gen. Diur. Lep.*, p. 405.

UPPERSIDE dark brown ; crossed near the outer margin by a curved band of six large ill-defined lilac spots. Posterior wing with a marginal band of five indistinct grey spots.

UNDERSIDE red-brown, closely undulated throughout with grey. Anterior wing with the apex nearly white, marked with two black spots. Posterior wing with a black spot dotted with white near the costal margin before the middle, and a sub-marginal band of five black spots, indistinctly dotted with white.

Expan. $2\frac{1}{2}$ in. Hab. East India.

In the Collection of the British Museum.

MELANITIS MALELAS. 6, 7.

UPPERSIDE. Male dark brown. Anterior wing glossed with brilliant blue ; marked with eight spots of light blue, three in the form of a triangle near the centre, five forming a curved submarginal band.

UNDERSIDE rufous-brown, undulated with grey towards the outer margins of both wings. Anterior wing with a pale spot at the end of the cell. Posterior wing with several spots of white near the base ; the inner margin undulated with grey.

Expan. $3\frac{2}{10}$ in. Hab. East India.

In the Collections of W. W. Saunders and W. C. Hewitson.

This species is nearly allied to *M. Casiphonæ* of Hubner and to *M. Patua* of Westwood





PLATE 100
PIERIDAE (Pieris)

ERYCINIDÆ.

TAXILA. *Doubleday.*

TAXILA TELESIA. 1, 2.

UPPERSIDE. Male dark brown. Anterior wing with the apex and outer margin carmine, the inner margin produced, rounded, with near its middle an oval spot of lilac-white.

UNDERSIDE carmine with bands and spots of blue and black. Anterior wing with the apex rufous; a longitudinal and transverse band within the cell blue, a second transverse band also blue, followed by five blue spots, bordered inwardly with black. The inner margin, where the wings touch, light yellow. Posterior wing with numerous black and blue spots. Crossed near the outer margin by a band of light blue and a band of light yellow, each bordered with black, and separated by a band of the same colour.

Expan. $1\frac{1}{2}$ in. Hab. Sarawak.

In the Collection of A. R. Wallace.

TAXILA TENETA. 3, 4.

UPPERSIDE. Female rufous-brown, with a large triangular orange spot near the apex of the anterior wing. Posterior wing crossed beyond the middle by a band of blue spots, seen only in a particular light.

UNDERSIDE light brown. Anterior wing with the orange spot as above; a spot of black and band of blue within the cell; the end of the cell black, followed by several spots of black and blue. A large black spot at the middle of the wing, succeeded by a spot of blue and band of black; a band of black near the outer margin. Posterior wing dark brown, the nervures lighter. Crossed near the base by a transverse band of blue followed by three blue spots. Crossed beyond the middle by a transverse band of blue spots, and nearer the outer margin by two light rufous bands.

Expan. $1\frac{9}{10}$ in. Hab. Sarawak.

In the Collections of W. W. Saunders and A. R. Wallace.

Tach.

TAXILA THUISTO. 5, 6.

UPPERSIDE. Male uniform dark brown.

UNDERSIDE rufous. Anterior wing with a longitudinal band within the cell, a second below it, and a short transverse band at the end of the cell, all blue, followed by three macular transverse bands: the first black, bordered outwardly with blue; the second and third (near the outer margin) white or slightly blue, bordered inwardly with black. Posterior wing crossed twice transversely near the base with blue; before the middle by several irregular spots; beyond the middle by a band of conical spots, and near the outer margin by a band of lunular spots, all black bordered outwardly with blue.

Female rufous clouded at the base. Both wings crossed transversely beyond the middle by a band of oblong black spots, each spot marked with dull blue—those near the costal margin of the anterior wing interrupted by five white spots. Both wings with a band of lunular black spots near the outer margin, each spot traversed by a line of blue or white. Anterior wing with a transverse band of black spots before the middle. Underside (fig. 5) does not differ from the male, except that it is lighter.

Expan. $1\frac{3}{8}$ in. Hab. Singapore.

In the Collections of W. W. Saunders and A. R. Wallace.

TAXILA ORPHNA. 7.

Emesis Orphna, Boisduval. *Spec. Gen. Pl.* 21, underside.

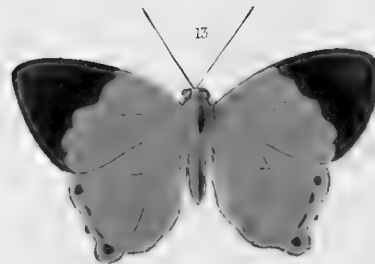
UPPERSIDE. Male dark brown. Crossed transversely at the middle by an equal band of grey-white.

UNDERSIDE carmine, with numerous spots of black and blue. Posterior wing with a band of light blue, and a similar band of light yellow near the outer margin, separated by a band of black.

Mr. Westwood is in error with regard to the insects figured as *Orphna*, male and female, in Plate LXIX. of the "Genera of Diurnal Lepidoptera," misled by having seen Boisduval's figure of the underside only. On the underside *Orphna* does not differ from the species figured in the "Genera" for which (as it is now without one) I propose the name of *Tanita*—*Taxila Tanita*.



ERYCINIDÆ.
TAXILA. II



Edinburgh 1861

Printed by Walter & Cohn

9. 10. TAXILA PULCHRA.

11. 12. 13. TAXILA DECORATA

ERYCINIDÆ.

TAXILA. II.

TAXILA PULCHRA. 8, 9, 10.

♀ *Argynnis Pulchra* Gúér. *Voy. Coquil.*, Pl. 16, fig. 2, 3.

UPPERSIDE. Male dark brown; anterior wing crossed, from the first discoidal nervule to the outer margin near the anal angle, by a band of silvery white.

UNDERSIDE rufous with numerous bands of white; anterior wing with the outer half dark rufous-brown; a band and two spots within the cell, a lunular spot at the end of the cell, two curved transverse bands of white spots beyond the middle: the first band of five detached spots (four small and silvery, the fifth larger), the second band nearly continuous; two silvery white spots near the apex (one partly black); posterior wing with a short tail: crossed from its costal margin to the median nervule by four curved bands of white followed by two silvery white spots, the median nervules broadly white followed by two curved bands of white parallel to the outer margin: a submarginal band of silvery white spots, the middle spot at the base of the tail with its centre black; a black spot near the apex.

Female rufous; anterior wing with a large central space of orange-yellow, the outer half black; the posterior wing with the outer margin and some spots near it dark brown. On the underside the sexes are exactly alike.

Expan. $1\frac{8}{10}$ in. Hab. Waigiou.

In the Collections of W. W. Saunders and W. C. Hewitson.

TAXILA DECORATA. 11, 12, 13.

UPPERSIDE. Male brick-red ; anterior wing crossed obliquely at the middle by a band of rufous-orange: the outer half dark brown ; posterior wing with its outer margin from the apex to the tail paler, marked with four black spots.

UNDERSIDE rufous with numerous spots and bands of white ; anterior wing with the outer half dark rufous-brown ; a lunular spot within the cell, a second beyond the cell, a silvery-white spot and larger pale-yellow spot towards the anal angle : two transverse curved bands beyond the middle : the first of detached silvery white spots, the second continuous : two silvery-white spots near the apex ; posterior wing crowded with round and oblong white spots ; a submarginal band of silver spots, the middle spot at the base of the tail with its centre black ; a black spot also near the apex.

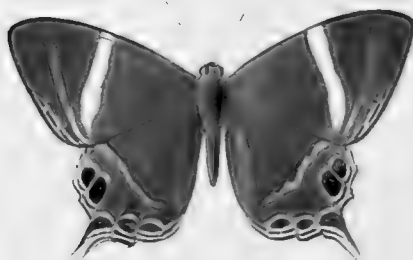
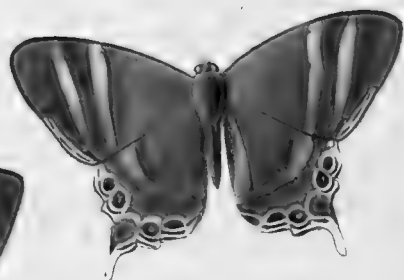
Female orange-yellow ; anterior wing with the outer half dark brown ; posterior wing with submarginal black spots from the apex to the tail. On the underside the sexes are alike, except that some of the spots which are white in the male, are indistinct and rufous in the female.

Expan. $1\frac{8}{10}$ in. Hab. Aru.

In the Collections of W. W. Saunders and W. C. Hewitson.

Although the female of *Taxila Pulchra* has been figured in the voyage of the *Coquille*, I have thought it well to repeat it here together with its male, to show the difference and at the same time the great similarity of these two species.

THE BUTTERFLY



ERYCINIDÆ.

SOSPITA. *Hewitson.*

The genus *Taxila* of the "Genera of Diurnal Lepidoptera" — *Emesis* of Dr. Boisduval—contains within itself three groups of butterflies as distinct almost, in contour and in colour, as any that are to be found in the family of the Erycinidæ. It is true that they do not differ in some of the characters which usually serve to divide genera; in the palpi, or the arrangement of the nervures; but their differences are so palpable to the eye, that I have thought it better, on the arrival of many new species, to divide this genus into three. I have done so with hesitation, because I greatly admire (and would wish to follow in the footsteps of) those leading entomologists, Dr. Boisduval and Mr. Westwood, who have been contented to retain undivided large natural groups of butterflies, instead of indulging themselves in the small ambition of creating new genera.

The genus *Taxila*, as I propose to leave it, will still contain butterflies of different form, *all, however, beautifully adorned on the underside*. Beside the insects figured in the Plate, it will contain *Drupadi* of Boisduval and *Pulchra* (*Argynnis pulchra*) of Guérin. It has *the eyes smooth*, or very nearly so.

The Butterflies of the genus *Sospita* have the *eyes distinctly hairy*, and are marked at the apex and anal angle of the posterior wing (usually on both sides) by black spots (usually in pairs). It will contain, besides the figures of the Plate, *Fylla* of the "Genera," *Echerius* of Stoll, and *Tepahi* of Boisduval.

The third genus, for which I propose the name of *Dodona*, will contain a very different set of insects, resembling *Nemeobius* and *Melitæa* in their colouring, with the hind wings of the male protruded at the anal angle; the *antennæ distinctly clubbed*. This genus is represented by *Durga* of Kollar, and *Egeon* of the "Genera," which is, I have little doubt, the male of the said *Durga*. There are other unpublished species of this genus.

SOSPITA TANTALUS 1.

Emesis Tantalus, *Boisd. Ms.* *Taxila Tantalus*. *Doubleday, Brit. Mus. List.*

UPPERSIDE rufous-brown. Anterior wing crossed at the middle by an ill-defined band of white, and marked beyond the middle by a triangular spot of the same colour. Anterior wing with a single black eye near the apex; posterior wing with a double eye; both eyes with a rufous border, and centre of silvery blue. Posterior wing with a short tail, and two indistinct light bands between it and the anal angle.

UNDERSIDE as above, except that it is lighter, and that the posterior wing is crossed transversely at the middle by a lighter band.

Expan. $1\frac{17}{20}$ in. Hab. Ashanti.

In the Collection of the British Museum.

SOSPITA SUSIA. 2.

UPPERSIDE. Male rufous-brown. Anterior wing crossed transversely beyond the middle by two nearly parallel bands of rufous-white. The outer margin from the middle to the anal angle pale, traversed by a dark line. Posterior wing tailed, crossed by two curved bands, one near the outer margin waved and forming a border to two black spots near the apex; a submarginal band of white traversed by a black line. The tail white.

UNDERSIDE as above.

Expan. $2\frac{1}{2}$ in. Hab. India.

In the Collections of W. W. Saunders and W. C. Hewitson.

SOSPITA NEOPHRON. 3.

Emesis Neophron, Boisd. Ms. *Taxila Neophron*. Doubleday, Brit. Mus. List.

UPPERSIDE. Male rufous-brown. Anterior wing crossed transversely at the middle by a broad band of white, and obliquely beyond the middle by a narrow, obscure, rufous band. The outer margin pale from the middle to the anal angle, traversed by a dark line. Posterior wing tailed. Crossed beyond the middle and near the outer margin by waved rufous bands. Two large black spots at the apex, separated by a line of orange. A submarginal band of white traversed by a black line. The tail white.

UNDERSIDE as above.

Expan. $2\frac{1}{10}$ in. Hab. Sylhet.

In the Collections of W. W. Saunders and W. C. Hewitson.

SOSPITA SEGECIA. 4, 5, 6.

UPPERSIDE. Male black. Anterior wing crossed transversely at the middle by an irregular band of white—narrow from the costal margin to the median nervure, broad below it. Two small spots near the apex, and the apex itself white. Posterior wing spotted with white on the outer margin.

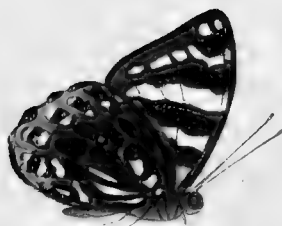
UNDERSIDE. Anterior wing as above, except that there is a band of white within the cell, that the transverse band in the middle is broader near the costal margin, and that four spots cross the apex, and form part of a band which is continued to the anal angle, and that there are two minute white spots near the apex. Posterior wing with the costal half dark brown, crossed by a band of lighter colour. The inner half pink marked with a black spot at the base, crossed transversely beyond the middle by four red-brown spots. Near the outer margin, which is orange, there is a band of unequal conical spots, marked at both ends with white. The outer margin spotted with black.

Female, fig. 5, differs but little from the male on the underside.

Expan. $2\frac{3}{10}$ in. Hab. New Guinea.

In the Collections of W. W. Saunders and W. C. Hewitson.





11. *Graphis* *graphis*

12. *Graphis* *graphis*

13. *Graphis* *graphis*

14. *Graphis* *graphis*

ERYCINIDÆ.

SOSPITA. II.

SOSPITA WALLACEI. 7, 8.

UPPERSIDE. Male black. Anterior wing crossed towards the apex by a band of three grey-white spots; the apex with a minute white spot; posterior wing with a large grey-white spot, divided into three by the nervures: the outer margin spotted with white.

UNDERSIDE dark brown; anterior wing with three transverse bands of dirty white; the first, within the cell, short: the second at the middle: the third halfway between it and the apex, curved; two minute white spots at the apex; posterior wing darker brown: three white spots within the cell and a semicircular band of indistinct dirty white spots near the middle; a submarginal band of orange marked with five black spots, bordered above and below with white; outer margin black spotted with white.

Expan. $2\frac{4}{10}$ in. Hab. Mysol.

In the Collection of A. R. Wallace.

Arch. San. 1. 1. 1.

SOSPITA STATIRA. 9, 10, 11, 12.

UPPERSIDE. Male dark brown; the posterior wing with a submarginal band of orange spots.

UNDERSIDE brown; anterior wing with a small spot near the base, three transverse bands, two spots near the apex and a minute spot at the apex all white; posterior wing with three white spots within the cell: a curved band of oblong black spots at the middle, the two spots nearest the inner margin bordered above and below with grey-white: a second submarginal band of oblong black spots bordered above and below with white: followed by a band of orange marked on the outer margin with black spots: a spot of white at the anal angle.

Female rufous-brown; anterior wing with the outer half black: crossed beyond the middle by a broad orange-yellow band followed by a minute white spot; the apex with two minute white spots; posterior wing crossed at the middle and again near the outer margin by short curved bands each of three black spots: the outer margin also marked with black spots with rufous lunular spots between them. Underside with the base of the anterior wing and the whole of the posterior wing rufous; anterior wing black with the central transverse band as above, a round black spot near the base, a curved band of white spots towards the apex as in the male, two spots of white nearer the apex and two at the apex also white; posterior wing as in the male, except that the three spots near the base are black, and that the central curved band of black spots is broken in the middle.

Expan. $2\frac{2}{10}$ in. Hab. Mysol.

In the Collections of W. W. Saunders and W. C. Hewitson.

I have named one of these very beautiful new butterflies after its discoverer Mr. Wallace. No naturalists who have ever yet left the shores of Europe to explore the unknown glories of the tropics have so well deserved the gratitude of entomologists as Mr. Wallace and Mr. Bates have done, and if they had taken their collections to the Continent they might have had their names repeated *ad nauseam*, but I do not believe that this would have been to the taste of my countrymen. Such a mark of the approbation of his brother naturalists might have been considered an honour worth winning, if bestowed upon those only who have earned it by years of devotion to the cause, but when given indiscriminately, and to those who have never done anything to deserve it, it becomes of little value,

1875
 1876
 1877



1878
 1879

1880
 1881

1882
 1883
 1884
 1885

ERYCINIDÆ.

DODONA AND SOSPITA.

DODONA ADONIRA. 1, 2.

UPPERSIDE. Male, dark brown, paler near the base. Anterior wing crossed transversely by three parallel equidistant rufous bands; posterior wing lobed at the anal angle: crossed obliquely by four narrower bands of the same colour; the anal lobe marked by two spots of black: rufous above the lobe and spotted with black.

UNDERSIDE orange-yellow with the outer margins dark brown; both wings crossed by five narrow dark brown bands, broken where the wings meet; anterior wing with a sixth short band beyond the third: posterior wing with a sixth and seventh band near the inner margin: orange near the anal lobe and marked with several black spots.

Expan. $1\frac{1}{2}$ inch. Hab. East India (Darjeeling).

In the Collection of W. C. Hewitson.

DODONA DIPOEA. 3.

UPPERSIDE. Male, dark brown; anterior wing with macular bands and spots rufous and white; posterior wing with a short rufous band near the middle and two submarginal bands of the same colour.

UNDERSIDE rufous-brown; anterior wing as above; posterior wing crossed near the base and inner margin by three bands of paler colour, the third silvery near its base: a silver spot on the middle of the costal margin, a band of pale brown below it which curves upwards towards the inner margin and bordered inwardly with black: beyond the middle a short band of white also bordered inwardly with black, and below it a band of black which bends upwards to the inner margin when it reaches the anal lobe: two black spots bordered above and below with white and a submarginal band of brown bordered on each side with white: the lobe black bordered with white.

Expan. $1\frac{8}{10}$ inch. Hab. East India (Darjeeling).

In the Collection of Mr. Atkinson of Calcutta.

I have hesitated before describing this as a species distinct from *D. Egeon*; they are alike on the upperside, but whilst the underside of the posterior wing of *D. Egeon* is crossed by broad bands of silvery white without any margin, this species has narrow bands of white margined by black.

Feb. Jan. 1866.

D D

DODONA OUIDA. 4, 5, 6.

UPPERSIDE. Male, dark brown; both wings crossed by three rufous bands; anterior wing with two minute white spots near the apex; posterior wing with a fourth rufous band near the outer margin.

UNDERSIDE rufous; as above except that the transverse bands of the anterior wing are spotted with white at the costal margin, that the inner band of the posterior wing is spotted with white near the base, and that there are three black spots bordered below with white, one near the middle of the costal margin and two near the apex, and also a small black and white spot near the anal lobe.

Female like the male, except that the wings are paler, that both wings are without the band nearest the base, that the central band of the anterior wing is broader and nearly white, that of the posterior wing scarcely seen.

Expan. ♂ $1\frac{8}{10}$ ♀ 2 inches. Hab. East India (Darjeeling).

In the Collection of W. C. Hewitson.

SOSPITA LYDDA. 13.

UPPERSIDE. Male, lilac-brown: a transverse band at the middle and the outer margins dark rufous-brown; anterior wing with a black line at the end of the cell.

UNDERSIDE as above, except that there are three indistinct black spots on the posterior wing, two near the apex, one near the anal angle.

Female (fig. 13) like the male, except that it is of much paler colour.

Expan. $1\frac{1}{2}\frac{3}{0}$ inch. Hab. Hong Kong.

In the Collections of the British Museum and W. C. Hewitson.

SOSPITA TANTALUS. 14, 15.

UPPERSIDE. Male, carmine-brown; anterior wing crossed by a broad and narrow band of lilac: a blue-black spot near the apex; posterior wing with a lilac spot near the costal margin; a bifid blue-black binocular spot near the apex dotted with blue; two indistinct submarginal lilac bands.

UNDERSIDE paler; anterior wing crossed by two bands of white; posterior wing with three bands and a spot at the base, white.

Female like the male, except that it is without the lilac bands and spot and has two large spots of white towards the apex of the anterior wing.

Expan. $1\frac{8}{10}$ inch. Hab. Old Calabar.

In the Collection of W. C. Hewitson.

The female of this species is figured in the second volume of this work. Plate XLVI.

ERYCINIDÆ.
MESOSEMIA 1



W. C. Hewatson, del et lith. 1887

Printed by Hullmandel & Walton

1 2 MESOSEMIA MEVANIA.
7 4 5 6 MESOSEMIA LAMACHUS.

7 8 MESOSEMIA MOESIA
9 10 MESOSEMIA TELEPHONE

ÉRYCINIDÆ.

MESOSEMIA. I.

MESOSEMIA MEVANIA. 1, 2.

UPPERSIDE. Female dark brown. Anterior wing from the base to the middle (except the costal margin) of a glossy grey-blue. Crossed before the middle by a curved line of black, and beyond the middle by a transverse band of white from the costal margin to the anal angle, where it ends in a point. At the end of and within the cell there is a black eye with three minute pupils of white, and between it and the base and within the cell a curved transverse line of black, followed below it, but not continuously, by another transverse black line. Posterior wing glossy, grey-blue, the inner and outer margins brown, the brown of the outer margin inwardly black. Crossed before the middle by a scarcely-seen black line. Near the apex an indistinct linear spot of dirty white.

UNDERSIDE of a uniform light brown. Anterior wing with the white band as above; the eye surrounded by a rufous iris, the lines on each side of it as above, but brown, their inner margins pale brown; between the eye and the inner margin a second triangular eye-like black spot with pale brown iris. Posterior wing crossed near the base and before the middle by lines of brown, inwardly paler, with between them a small black eye, with white pupil and pale brown iris.

Male as above, but much smaller.

Expan. ♂ $1\frac{6}{10}$ in., ♀ $2\frac{3}{10}$ in. Hab. New Granada.

In the Collection of W. C. Hewitson.

MESOSEMIA LAMACHUS. 3, 4, 5, 6.

M. Lamachus, Boisduval Ms. Doubleday, Brit. Museum Cat.

UPPERSIDE. Male brown. Anterior wing at the base slightly blue, crossed transversely at the middle by a curved black line and from a little beyond this line to the outer margin dark brown. The eye at the end of the cell with two white pupils, the iris rufous. Posterior wing blue, crossed at the middle by a black line, the margin black traversed by a line of blue.

UNDERSIDE light brown. Both wings crossed at the middle by a line of brown inwardly rufous, and beyond this line by two bands of brown, the outer margin rufous-brown; both with the usual black eyes with iris rufous; large and with three

pupils of blue on the anterior wing, small and with one pupil on the posterior wing. Both with a broken transverse line of brown, inwardly rufous, between the eyes and the base. Posterior wing with a very fine line of white between each of the nervules near the outer margin.

Female lighter brown. The broad outer margin of the anterior wing traversed transversely by a line of lilac-white. Posterior wing with a broad band of brown between the central transverse black line and the outer margin.

Expan. $1\frac{1}{2}$ in. Hab. Honduras.

In the Collections of W. W. Saunders. There is a variety of this species in the collection of Dr. Boissduval with the Ms. name of *Azurea*.

MESOSEMIA MOESIA. 7, 8.

UPPERSIDE. Male light purple-brown. Both wings crossed at the middle by a line of black and beyond it by a broad band of brown; both with a submarginal black line with a black spot at its middle, largest on the posterior wing. Anterior wing with the black eye with three pupils of white, and between it and the base a waved black line.

UNDERSIDE as above, but light brown, undulated throughout with rufous-brown. The black submarginal line broken into spots.

Expan. $1\frac{3}{5}$ in. Hab. Brazil.

In the Collection of the British Museum.

MESOSEMIA TELEGONE. 9, 10.

Diophtalma Telegone, Boisd. Spec. Gen. Plate 21.

UPPERSIDE. Male brown. Anterior wing slightly blue on the inner margin near the base; crossed at the middle by a line of black followed immediately by an indistinct line of lilac-white. The usual black eye with two pupils of blue, with between it and the base an indistinct broken black line. Posterior wing crossed by a broken line near the base, a line at the middle, and a line between it and the outer margin all black. (These last two lines vary in their distance from each other.) The outer margin broadly brown.

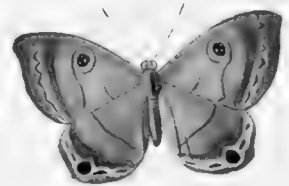
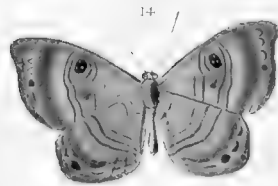
UNDERSIDE light brown. Both wings crossed at the middle by a line of brown inwardly lighter followed by a broad brown band; the margins also brown. Both with the usual eye with rufous iris; three pupils of blue on the eye of the anterior wing and one on that of the posterior wing, both surrounded with several indistinct lines. A broken transverse line between them and the base. Anterior wing with an indistinct black spot with rufous margin between the eye and the inner margin.

Expan. $1\frac{7}{10}$ in. Hab.

In the Collections of W. W. Saunders and W. C. Hewitson.

I have hesitated in separating this species and *lamachus*; they however differ considerably on the underside in the curve of the central black line and in the relative breadth of the space which surrounds the eye.

LEPIDOPTERA.
MEGALOPTERIDAE.



Printed by Kullmandel & Co. in

MEGALOPTERIDAE.
MEGALOPTERIDAE.
MEGALOPTERIDAE.

ERYCINIDÆ

MESOSEMIA. II.

MESOSEMIA NESTI. 11, 12.

Diophthalma Nesti, Boisduval, *Ms.*

UPPERSIDE. Male dark brown. Anterior wing with an obscure black spot in the cell, with a single dot of white. The inner margin produced as in the genus *Euplæa*. The outer margin of the posterior wing rufous, smooth, and shining.

UNDERSIDE light brown. Both wings with an oblong black spot in the cell, with three white dots on that of the anterior wing, and two on that of the posterior wing. Both crossed at the middle, and again, beyond it, by broad bands of dark brown. Both with the outer margin and a line near it brown.

Expan. $1\frac{9}{10}$ in. Hab. Cayenne.

In the Collection of Dr. Boisduval.

This species, though widely different in the form of its anterior wing from *M. Steli*—the wing of the male of which is not produced—does not differ from it at all on the underside. Fig. 12 may apply to both, except only that *M. Steli* has a round spot near the middle of the margin of the posterior wing.

MESOSEMIA STELI. 13.

Diophthalma Steli. Boisduval, *Ms.*

UPPERSIDE. Female light rufous brown. Both wings crossed at the middle by a continuous band of dark brown; beyond the middle by a broader band of the same colour; the outer margins also brown. Anterior wing with a triangular black spot in the cell with three white dots, and a narrow line of brown near the outer margin. Posterior wing with a row of five lunular spots—the middle one larger than the rest—near the outer margin.

UNDERSIDE as above, except that it is lighter, that the anterior wing has a small brown spot near the inner margin; that the posterior wing has a similar spot on its costal margin, and an oblong black spot in the cell twice crossed with white.

The male is much darker and smaller, but does not otherwise differ.

Expan: ♂ $1\frac{6}{10}$ in. ♀ $1\frac{9}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

Where it is not necessary to figure both sexes, I have given the females, because they are larger, and more distinctly marked.

MESOSEMIA ODICE. 14.

Erycina Odice, Godart, *Ency. Method.* page 583.

UPPERSIDE. Female light brown, with numerous transverse lines. Anterior wing with the usual eye-like spot at the end of the cell with three white dots and rufous iris, and below it a small spot of brown. Crossed just beyond this eye by two lines of brown, and between it and the base by two similar lines, except that one is short. Posterior wing crossed by two lines near the base, and two near the middle. Both wings crossed beyond the middle by a band of brown, and nearer the outer margin by a line of black spots, the middle one largest.

UNDERSIDE as above, except that the lines which cross the posterior wing are more waved, and the space between them thickly dotted with brown.

The male does not differ except in form and size, and in having the two lines which cross the middle of the anterior wing much less curved outwardly.

Expan. $1\frac{3}{10}$ in. Hab. Brazil.

In the Collections of W. W. Saunders and W. C. Hewitson.

MESOSEMIA RHODIA. 15.

Erycina Rhodia, Godart, *Ency. Method.* page 583.

UPPERSIDE. Female brown. Both wings with a continuous transverse line at the middle, a broad band beyond it, and the outer margin dark brown. Both with a line of black spots near the outer margin, the middle spot of the posterior wing large and round. Anterior wing with the usual black spot with three white dots, surrounded by a line of brown. Crossed near the base by a short brown line. Posterior wing with two indistinct black dots near the costal margin.

UNDERSIDE as above, except that the whole surface is thickly undulated with brown, that the cell of the posterior wing is crossed by a line of brown and has in it a small white spot with black centre.

The male differs only in being much darker on the upper side, and in being without the undulation on the underside of the posterior wing.

Expan. $1\frac{3}{10}$ in. Hab. Brazil.

In the Collections of W. W. Saunders and W. C. Hewitson.

MESOSEMIA MEEDA. 16, 17.

UPPERSIDE. Male black. Anterior wing with a large spot at the base, a broad transverse band beyond the middle, and a second band, but less distinct, near the outer margin, all grey-blue. The black spot at the end of the cell obscure with one white dot, partly encircled by an iris of blue. Posterior wing with the outer half grey-blue, traversed near the anal angle by a black line.

UNDERSIDE light brown. Both wings crossed at the middle by a zigzag line of brown, followed by a band of the same colour (undulated on the posterior wing). Both with a line of black spots near the outer margin, more distinct on the posterior wing, where the middle spot is larger than the rest, and round. Anterior wing with the usual black spot, with three white dots and rufous iris, and between it and the base a short line of brown. Posterior wing undulated with several transverse lines from the base to the middle; marked in the cell by an indistinct white spot, with black centre.

Expan. $1\frac{1}{2}$ in. Hab. Brazil.

In the Collection of W. C. Hewitson.

MESOSEMIA MÆNADES. 18.

UPPERSIDE. Male dark brown. Anterior wing with the black spot at the end of the cell angular, with three white dots, and bordered with rufous. Crossed beyond the middle by a broad transverse band of white divided by nervures into eight distinct spots. Three minute spots near the apex, and one near the middle of the outer margin white.

UNDERSIDE as above, except that it is lighter, with the nervures rufous; that there is a continuous row of white spots near the outer margin of both wings; that the anterior wing has another white spot near the apex, and an orange spot in the cell; that the posterior wing has a second row of indistinct white spots further from the margin.

Expan. $1\frac{9}{10}$ in. Hab. New Granada.

In the Collection of W. C. Hewitson.



W. H. & W. Walton

THE BUTTERFLY COLLECTION OF THE
 MUSEUM OF NATURAL HISTORY, LONDON
 1871

ERYCINIDÆ.

MESOSEMIA. III.

MESOSEMIA TENERA. 19.

M. Tenera, Westw., in *Gen. Diur. Lep.*, page 455.

UPPERSIDE light rufous-brown. Anterior wing with the usual black spot, with two dots of blue, surrounded with orange, and placed *beyond the middle*. Crossed by five waved light rufous lines, one at the middle, a second between the eye and the inner margin, and three near and parallel to the outer margin. Posterior wing crossed before the middle by a short band of orange. The outer margin, and two waved lines near it, rufous-white.

UNDERSIDE as above, except that the posterior wing is much lighter, and is crossed by a second band of orange.

Variety with a distinct band of white across the outer wing.

Expan. 1 in. Hab. Brazil.

In the Collections of W. W. Saunders and W. C. Hewitson.

MESOSEMIA LAGORA. ♂ 20.

♀ *Diophthalma Lagora*, Boisd. *Ms.* Herrich-Schæffer, *Lep. Ex. figs.* 43, 44.

UPPERSIDE. Male white. Both wings crossed beyond the middle by two bands of light brown, followed by a waved line with a black spot midway (round on the anterior, lunular on the posterior wing), both with the margin light brown. Anterior wing crossed by a band of the same colour before the middle.

UNDERSIDE as above, except that the posterior wing is crossed by two bands near the base, that there is a black oblong spot near the middle of the anterior wing, with one white dot and rufous margin, with a band from it crossing both wings.

Expan. $1\frac{5}{20}$ in. Hab. New Granada.

In the Collection of W. C. Hewitson.

MESOSEMIA GEMINUS. 21, 22.

P. Geminus, Fab. *Mes. Cælestina Ménétrics*, *Cat. de l'Académie Imp. St. Petersburg*, Pl. 6.

UPPERSIDE. Male light blue. Both wings with the outer margin broadly black, traversed by a line of blue. Anterior wing crossed at the middle by a broad band of black.

UNDERSIDE lighter blue. Anterior wing with the outer margin, which is narrow, and an indistinct zigzag line near it at the apex brown. Posterior wing crossed near the middle by several indistinct waved lines, followed by a black spot near the costal margin, and a submarginal line of black spots, the margin brown and narrow.

P. G. L. 61a

Female. Upperside light blue, smeared with brown; both wings crossed before the middle by a curved band of blue, at the middle by a double line of black, followed by a band of brown. The outer margins brown, traversed by a line of blue. Anterior wing with a central oblong black spot, with two dots of blue.

UNDERSIDE differs only in being lighter.

Expan. $1\frac{1}{2}$ in. Hab. Brazil.

In the Collections of W. W. Saunders and W. C. Hewitson.

MESOSEMIA MEANA. 23, 24.

UPPERSIDE. Female light brown to beyond the middle. Both wings crossed by numerous black lines, followed by a band of white (narrower on the posterior wing), also by a band of grey separated from the white by a black line. The outer margins broadly brown. Anterior wing with a large black central spot, with three dots of light blue.

UNDERSIDE as above, except that the grey band and black line of the anterior wing are absent; the black line of the posterior wing broken into spots, the grey band into sagittate spots.

Expan. $1\frac{1}{2}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

MESOSEMIA CRÆSUS. ♀ 25, 26.

‡ *P. Cræsus*, *Fab.* *P. Capaneus*, *Cramer*, *Pl.* 236.

UPPERSIDE. Female light brown to beyond the middle. Both wings crossed by several black lines, followed by a broad grey band traversed by a line of black; the outer margin dark brown. Anterior wing with a large central black spot, with three dots of light blue.

UNDERSIDE as above, but much lighter; the grey band nearly white.

Expan. $1\frac{1}{2}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

MESOSEMIA MARISA. 27.

UPPERSIDE. Female light brown, crossed by several black lines, followed *near the margin* by a band of grey traversed by a black line, the margins brown. Anterior wing with a large central black spot, with three dots of blue.

UNDERSIDE as above, but lighter.

Expan. $1\frac{3}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

The three butterflies last described bear so much resemblance to each other that I have had some hesitation in separating them. They may be all varieties of the female of *M. Cræsus*. They all have the three blue dots on the central black spot. *M. Meana* bears much resemblance to *Gneris* of Boisduval, figured at Plate 71 of the "Genera of Diurnal Lepidoptera." *M. Marisa* is the most distinct. The black line which traverses the grey band of the anterior wing is nearer to the margin.

Descriptions are entirely unavailing to point out such distinctions, and I almost doubt my ability, with the best figures I can draw, to clearly indicate the minute differences which separate even good species.

$\mathcal{F} = \{f_1, \dots, f_n\}$ is a family of functions from X to Y . Let \mathcal{F}_∞ be the set of all functions $f: X \rightarrow Y$ such that $f \in \mathcal{F}$ or f is the limit of a sequence of functions in \mathcal{F} . Let \mathcal{F}_∞ be the set of all functions $f: X \rightarrow Y$ such that $f \in \mathcal{F}$ or f is the limit of a sequence of functions in \mathcal{F} . Let \mathcal{F}_∞ be the set of all functions $f: X \rightarrow Y$ such that $f \in \mathcal{F}$ or f is the limit of a sequence of functions in \mathcal{F} .



1. The first step is to identify the key components of the system. This involves understanding the hardware, software, and data involved in the process.

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THE MUSEUM OF THE MICHIGAN MICHIGAN

4. MESOSEMIA MISIPSA

$\frac{1}{2} \left(\frac{1}{2} \right) = \frac{1}{4}$

8 MESOSEMIA EUMENUS ϕ

ERYCINIDÆ.

MESOSEMIA. IV.

MESOSEMIA MACELLA. 28, 29, 30.

UPPERSIDE. Male, brown with transverse bands of black. Both wings dark brown from the base to the middle, lighter beyond it; with three transverse oblique bands, and the outer margin dark brown. The black spot of the anterior wing with two white dots.

UNDERSIDE as above, except that it is of a uniform light brown; that the anterior wing has a small brown spot below the black spot; that the posterior wing has a spot of black with two white dots before the middle.

Female light brown. Both wings crossed beyond the middle by three bands of dark brown; the outer margin also brown. Underside (fig. 29) as in the male, but without the small brown spot on the anterior wing.

Expan. $1\frac{3}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

MESOSEMIA MACARIS. 31, 32.

UPPERSIDE. Male light blue, with transverse bands of black. Anterior wing with the inner margin convex. The black spot *before the middle* marked with *two white dots*, followed by four curved transverse equidistant bands of black; the first three bands imperfect. The outer margin black. Posterior wing with the costal margin white and polished. Two submarginal bands and the outer margin black.

UNDERSIDE grey. Anterior wing with six bands; two before and four after the black spot. Posterior wing with seven; the third band from the base broadest and marked with a black dot between two white ones.

Female light grey-brown. Anterior wing with six transverse bands; posterior wing with seven; together with the outer margin of both brown. Underside exactly as above, except that the third band of the posterior wing has the black and white dots as in the male.

Expan. $1\frac{3}{20}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

Were it not that—with few exceptions—the undersides of the sexes differ very little, the study of these small species would be very difficult. As a general rule the upperside of the female is closely copied on the underside of the male

Feb Jan 1. 1889.

Y Y

MESOSEMIA MISIPSA. 33, 34, 35.

UPPERSIDE. Male silvery-blue with transverse bands of black. Anterior wing with the black spot central, marked with *a single dot of white*. Crossed before the black spot by two bands of black; after it by four, *the first pair of which are angular*, the other two curved and parallel to the outer margin. Posterior wing with a black spot on the middle of the costal margin, followed by four transverse black bands. The outer margin of both wings brown, the fringe rufous.

UNDERSIDE (33) light brown, the bands as above, except that the posterior wing has eight transverse bands; the fourth from the base broadest, marked with two white spots, each with a dot of brown.

Female light grey-white; the bands light brown. Anterior wing with six bands. Posterior wing with eight; the space between the third and fourth bands from the base marked by two or three small dots of brown. Underside as above, except that the black spot has three white dots in both sexes.

Expan. $1\frac{1}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

MESOSEMIA IDOTEA. 36, 37.

♀ *Mesosemia Idotea*, Westw., *Gen. Diur. Lep.*, text 455. (1851.)

♂ *Diophthalma marita*, Boisd. *Herrich-Schæffer, Lep. Ex. fig.* 42. (1853.)

UPPERSIDE. Male lilac, with numerous transverse bands. Anterior wing with the usual black spot before the middle, marked with *three dots of white*; a triangular spot below it; two bands between it and the base, four after it (the first *curving outwards*, when it meets the inner margin); and the outer margin all brown. Posterior wing with seven bands and a narrow outer margin brown.

UNDERSIDE does not differ, except that the penultimate band of the posterior wing is undulated.

Female grey or white. Anterior wing with six bands, and the outer margin brown. Posterior wing with seven bands, and the outer margin brown. The fringe of both wings white. Underside as above, except that the third band from the base of the posterior wing is marked by a black spot.

Expan. $1\frac{1}{20}$ to $1\frac{3}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

The male of this species is well figured by Herrich-Schæffer. I have repeated it here to complete the group. The females of the three species just described, although bearing a strong resemblance to each other, may be readily known by the position of the transverse band which immediately follows the black spot of the anterior wing. In *M. Misipsa* the band, after passing round the spot, meets the inner margin at an inclination towards the base of the wing. In *M. Idotea* it meets the same margin inclining outwards, and in *M. Macaris* it meets the margin nearly at a right angle.

MESOSEMIA EUMENUS. ♀ 38.

♂ *P. Eumene*. *Cramer, pl.* 92.

I have figured the female of this species to show its likeness to the preceding.



W. H. L. & W. H. L.

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39 40 41. MESOSEMIA MINOS. 42. 43. 44 MESOSEMIA TRAGA
45 46 47 MESOSEMIA EPIDIUS

ERYCINIDÆ.

MESOSEMIA. V.

MESOSEMIA MINOS. 39, 40, 41.

Diophthalma Minos, Boisd. Ms. Doubleday, Brit. Mus. List.

UPPERSIDE. Male (fig. 40) rufous or grey-brown. Anterior wing with the usual black eyelike central spot, with three dots of white; below it a spot of brown, marked with a black spot; both encircled with two narrow bands of brown. The outer margin, a narrow line near it spotted with black at its middle, and a broad transverse band, all brown. Posterior wing with eight transverse bands and the outer margin brown. The space between the third and fourth bands brown, with a spot of black; the eighth (the submarginal) band slightly thickened at its middle.

UNDERSIDE as above, but lighter.

The female (figs. 39, 41) differs only in having the posterior wing lighter towards its outer margin, and the black spot on the middle of the submarginal band more distinct.

Expan. $1\frac{3}{10}$ in. to $1\frac{5}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

MESOSEMIA TRAGA. 42, 43, 44.

Diophthalma Traga, Boisd. Ms. Doubleday, Brit. Mus. List.

UPPERSIDE. Male (figs. 42, 44) dark brown. The central black spot with three white dots, and below it a brown spot, both encircled by two narrow bands of brown. The outer margin, a line near it, and a broad band, all dark brown. Posterior wing dark brown from the base to the middle; from the middle to the

outer margin white, crossed by eight bands of dark brown, broken where they cross the white part. The space between the third and fourth band broad, clouded, and marked with a black spot.

UNDERSIDE as above, but lighter. The base of the posterior wing light grey.

Female (fig. 43, a small example) differs only in its lighter colour.

Expan. $1\frac{4}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

MESOSEMIA EPIDIUS. 45, 46, 47.

Diophthalma Epidius, Boisd. Ms.

UPPERSIDE. Male glossy blue. The central black spot with three white dots; below it a large black spot; between it and the base a band of black; between it and the apex two bands of black; the outer margin also black. Posterior wing with a large central triangular spot of black, followed by two bands and a line (with a black spot midway) also black; the outer margin black.

UNDERSIDE grey and rufous; the central black spot encircled by a slender line of brown; below it a quadrate space of brown, with a central black spot; between it and the base a band of brown; between it and the outer margin a narrow band, a broad band, and a slender line of brown; the outer margin also brown. Posterior wing crossed by six bands of brown; two near the base, two near the middle, two near the outer margin. Between the second and third bands there is a black spot marked with two white dots and some indistinct spots of brown. The sixth band is narrow and broken into spots, with a round spot midway.

The female differs little on the upperside from the underside of the male. On its underside it is exactly similar.

Expan. $1\frac{6}{10}$ in. Hab. Cayenne.

In the Collection of Dr. Boisduval.



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ERYCINIDÆ.

MESOSEMIA. VI.

MESOSEMIA CIPPUS. 48, 49.

Diophthalma Cippus, Boisd. Ms.—Doubleday, Brit. Mus. List.

UPPERSIDE. Male brown. *The black spot* of the anterior wing *central*, with three dots of white, and below it a brown spot. Posterior wing with an indistinct eye-like spot, and spot of brown before the middle. Both wings with two transverse bands of brown between these spots and the base, both with four transverse bands between them, and the outer margin which is brown. The submarginal band of the posterior wing thickest, *not in the middle*.

UNDERSIDE as above, except that it is much lighter, that the eye-like spot of the posterior wing is more distinct, and that the broadest of the bands is somewhat macular.

Expan. $1\frac{1}{2}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

MESOSEMIA MÆOTIS. 50, 51.

UPPERSIDE. Female grey. Anterior wing with the black spot *before the middle* with one dot of white. Posterior wing with an indistinct eye-like spot and spot of brown. Both wings with two transverse bands of brown between these spots and the base, both with four bands between them, and the outer margin which is brown; the submarginal band of the posterior wing thickest *in the middle*.

UNDERSIDE as above, but lighter.

Expan. $1\frac{1}{2}$ in. Hab. Amazon.

In the Collection of the British Museum.

May be the female of the last (*M. cippus*), but differs from it in the position of the black spot, which is nearer the base of the wing, in the curve and relative position of the bands, as well as in the position of the black spot on the submarginal band of the posterior wing.

MESOSEMIA ANTÆRICE. 52, 53.

Diophthalma Antærice, Boisd. Ms.—Doubleday, Brit. Mus. List.

UPPERSIDE. Male blue. Anterior wing with the black spot central, circled by

a black line; a large quadrate black spot below it. Posterior wing with an indistinct eye-like spot. Both wings with a transverse band of black between the spots and the base. (Posterior wing with a second short band.) Both with four bands of black between the spots and the outer margin, the submarginal band of the posterior wing thickened at the middle.

UNDERSIDE as above, except that it is light brown, that the eye-like spots of both wings are in a rufous circle, and the submarginal band of both wings broken into spots, the middle spot of each round and distinct.

Expan. $1\frac{4}{10}$ in. Hab. Amazon.

In the Collection of the British Museum.

MESOSEMIA MELÆNE. 54, 55.

UPPERSIDE. Male brown, slightly tinted with lilac. The black spot central, with three white dots and a rufous circle, below it a bifid brown spot; between it and the base two broken transverse black bands; between it, and the outer margin which is brown, four transverse bands. Posterior wing with nine transverse bands, the space between the sixth and seventh band slightly rufous, the wing beyond it white.

UNDERSIDE as above, but lighter; the space between the second and third band (counting from the base) of the posterior wing, with two minute black spots.

Expan. $1\frac{4}{10}$ in. Hab. Amazon.

Very nearly allied to *M. Traga* (figs. 42, 43, 44), but differs from it considerably in the position of the transverse bands of the posterior wing.

MESOSEMIA MENOETES. 56, 57, 58.

UPPERSIDE. Male purple. The black spot of the anterior wing central, with three white dots. The basal half of both wings black. Both wings crossed beyond the middle by two broad black bands, and an obscure submarginal band.

UNDERSIDE as above, except that it is light brown, undulated with light yellow, that both wings have a submarginal black line marked in the middle of the posterior wing by a round black spot.

Female light grey-brown, undulated with light yellow, the bands as in the male; the submarginal band of the posterior wing distinctly marked in its middle by a large round black spot. Underside as above, and as in the male.

Expan. $1\frac{7}{20}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

It will be seen by the habitats given here and throughout this work, how very much we are indebted to the perseverance of Mr. Bates.

A collection of ten black and white illustrations of butterflies, showing various species with distinct patterns like eyespots, stripes, and bands. The butterflies are arranged in a loose, scattered pattern on a white background. The illustrations include: a butterfly with two large eyespots on its forewings; a butterfly with a series of small eyespots along the wing margins; a butterfly with a large, dark, irregular shape on its forewing and a white patch on the hindwing; a butterfly with a large, dark, irregular shape on its forewing and a white patch on the hindwing; a butterfly with a large, dark, irregular shape on its forewing and a white patch on the hindwing; a butterfly with a large, dark, irregular shape on its forewing and a white patch on the hindwing; a butterfly with a large, dark, irregular shape on its forewing and a white patch on the hindwing; a butterfly with a large, dark, irregular shape on its forewing and a white patch on the hindwing; a butterfly with a large, dark, irregular shape on its forewing and a white patch on the hindwing; and a butterfly with a large, dark, irregular shape on its forewing and a white patch on the hindwing.

ERYCINIDÆ.

MESOSEMIA. VII.

MESOSEMIA MYONIA. 59, 60.

UPPERSIDE. Female light grey-brown. Anterior wing with the black spot central, with three dots of white, and round it a rufous space, bordered by two black lines. Crossed transversely beyond the black spot by two dirty white bands, the outer band traversed by a black line.

Posterior wing crossed by nine bands of brown, the third band from the base followed by a small black spot, the seventh broader than the rest.

UNDERSIDE marked as above, the posterior wing nearly white.

Expan. $1\frac{7}{10}$ in. Hab. Amazon.

In the Collection of the British Museum.

This is probably only a variety of *Philocles*.

MESOSEMIA PHILOCLES. Var. 61, 62, 63.

P. Philocles Linn.—*Cramer, Pl.* 184.

UPPERSIDE. Male blue-black. The usual black spot (with three white dots) touching a large triangular spot of light blue. Posterior wing black at the base, then blue to the middle, the outer half white, crossed by very faint blue bands (seen through), the costal margin with six short black lines.

UNDERSIDE rufous-brown, the eye-like spot with a small black spot below it, both bordered with three black lines. Crossed transversely beyond the middle by a band of lilac-white, traversed by a brown line. Posterior wing crossed by eight bands of brown, the fifth broken into spots; the outer margin broadly white.

The female scarcely differs on either side from the underside of the male.

Expan. $1\frac{6}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

This species is figured here, to enable me to give a beautiful variety.

MESOSEMIA METOPE. 64, 65.

UPPERSIDE. Male dark brown. The black spot with one or two white dots. The apex crossed by a triangular blue spot. Posterior wing brown at the base, the rest white, with six short black bands on the costal margin.

UNDERSIDE brown. The black spot, with two and a half black bands between it and the base, three bands between it and the outer margin. Crossed near the outer margin by a band of lilac-white, traversed by a broken black line. Posterior wing brown to the middle, white beyond it. Crossed by eight black bands. A black spot between the third and fourth bands; the seventh band broken, with, between it and the eighth, a short broad band on the costal margin; the outer margin black.

Expan. $1\frac{4}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

MESOSEMIA MELPIA. 66, 67.

UPPERSIDE. Male purple-brown. The outer margins rufous, traversed by a black line, the central black spot with one dot of white.

UNDERSIDE brown. The black spot with three dots of white, and bordered on each side by three bands of brown. Crossed beyond the middle by a broad band of brown, followed by a band of black spots, the middle spot larger than the rest. Posterior wing crossed by eight bands, the third band followed by a wide space marked with brown spots, the fourth, fifth, and sixth bands curved and angular (in some examples these bands are straight), succeeded by a broad broken band and a submarginal band of black spots, the middle spot largest and round.

Female scarcely differs on either side from the underside of the male.

Expan. $1\frac{3}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

MESOSEMIA IBYCUS. 68, 69.

M. Ibycus, Doubleday, *Brit. Mus. List*.

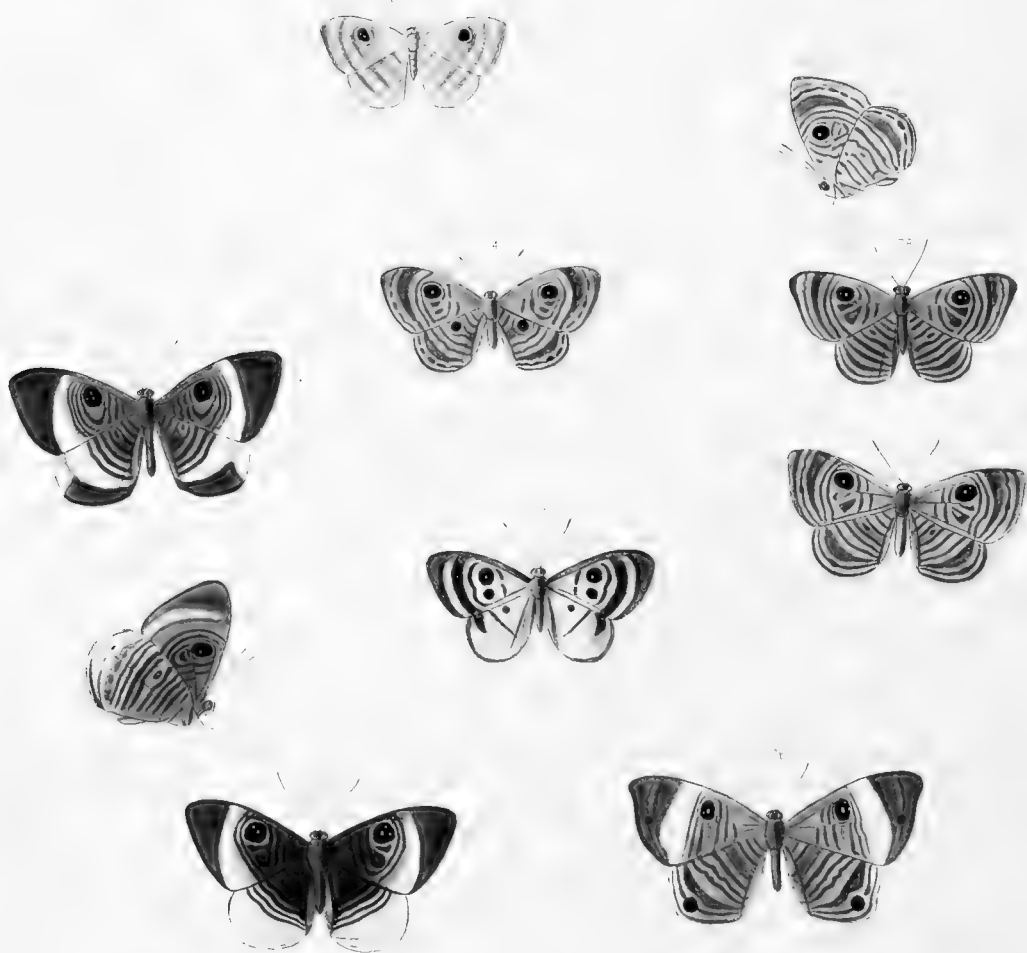
UPPERSIDE. Male dark brown. The black spot of the anterior wing with three white dots. Posterior wing with a brown spot before the middle. Both wings with some indistinct bands between the spots and the base. Anterior wing with one narrow band beyond the spot, posterior wing with two. Both wings with a broad band and a submarginal narrow zig-zag band.

UNDERSIDE as above, but lighter.

Female differs above in being of a lighter brown, below it is the same.

Expan. 1 in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.



1000 600 1000

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- | | | |
|----|-------------------|---------------------------|
| 70 | 71 | MESOSEMIA MACHÆRA |
| 72 | MESOSEMIA MAGETE. | 75 MESOSEMIA MESSEIS |
| | MESOSEMIA MATISCA | 76 MESOSEMIA METHION |
| 74 | MESOSEMIA MELESE | 77 78 79 MESOSEMIA MOSERA |

ERYCINIDÆ.

MESOSEMIA. VIII.

MESOSEMIA MACHÆRA. 70, 71.

UPPERSIDE. Male dark brown. Anterior wing crossed beyond the middle by a band of white. The black spot with three white dots; a brown spot below it; two bands between it and the base, and two beyond it. Posterior wing with the outer half white. Crossed at the middle by three distinct bands of black; a short line at the anal angle.

UNDERSIDE as above, except that the white band of the anterior wing is obscure, and that the posterior wing has ten transverse bands, with a black spot between the fourth and fifth; the ninth band broad, the tenth broken into spots.

Expan. $1\frac{4}{10}$ in. Hab. Amazon.

In the Collection of the British Museum.

MESOSEMIA MAGETE. 72.

UPPERSIDE rufous-brown. Both wings crossed beyond the middle by a broad band of white. The central spot of the anterior wing with three white dots; an enclosed space below it, and three bands on each side of it. Posterior wing with seven bands of brown, the three outer bands broad and distinct; a white spot on the apex.

UNDERSIDE as above.

Expan. $1\frac{9}{20}$ in. Hab. Amazon.

In the Collection of W. C. Hewitson.

MESOSEMIA MATISCA. 73.

UPPERSIDE. Female white. The central black spot of the anterior wing with three white dots, bordered with yellow and surrounded by a large space of grey-brown. Between it and the outer margin, which is broadly brown, there is a transverse band of the same colour. Posterior wing crossed transversely by four bands of brown; the outer margin slightly brown.

UNDERSIDE as above, except that the transverse bands are broader.

Expan. 1 in. Hab. Amazon.

In the Collection of Mr. Bates.

Closely allied to *P. Hyphea* of Cramer, but without the linear black band which crosses both the wings of that species.

MESOSEMIA MELESE. 74.

UPPERSIDE light brown. Both wings with the central black spot. On the anterior wing with three white dots; on the posterior with one. Both with some indis-

tinged bands between the spots and the base. Both crossed between them and the outer margin by two narrow bands; a broad band and a submarginal black line, with a black spot midway on the posterior wing.

UNDERSIDE as above, except that the submarginal line of the anterior wing has also a black spot midway.

Expan. $1\frac{3}{10}$ in. Hab. Amazon.

In the Collection of Mr. Bates.

MESOSEMIA MESSEIS. 75.

UPPERSIDE. Male light blue. Anterior wing with the costal and outer margins light brown. The black spot with two white dots. A black spot below it, a band between it and the base, two bands between it and the outer margin; all black. Posterior wing with a small black spot, with one white dot, before the middle; a black band at the middle, and a short band near the apex.

UNDERSIDE as above, except that it is light brown, and that the black spot of the posterior wing is much more distinct.

Expan. $1\frac{2}{10}$ in. Hab. Amazon.

In the Collection of Mr. Bates.

MESOSEMIA METHION. 76.

UPPERSIDE. Female light brown. Anterior wing crossed beyond the middle by a broad band of white. The black spot with three white dots; two bands and a half between it and the base, one below it, and two between it and the outer margin. The apex and outer margin broadly brown, traversed by an indistinct black line, with a black spot midway. Posterior wing with nine bands—the sixth and seventh zig-zag; the eighth broad and curved; the last linear, with a large black spot midway. The margin brown.

UNDERSIDE as above, but lighter.

Expan. $1\frac{1}{2}$ in. Hab. Brazil.

In the Collection of W. C. Hewitson.

MESOSEMIA MOSERA. 77, 78, 79.

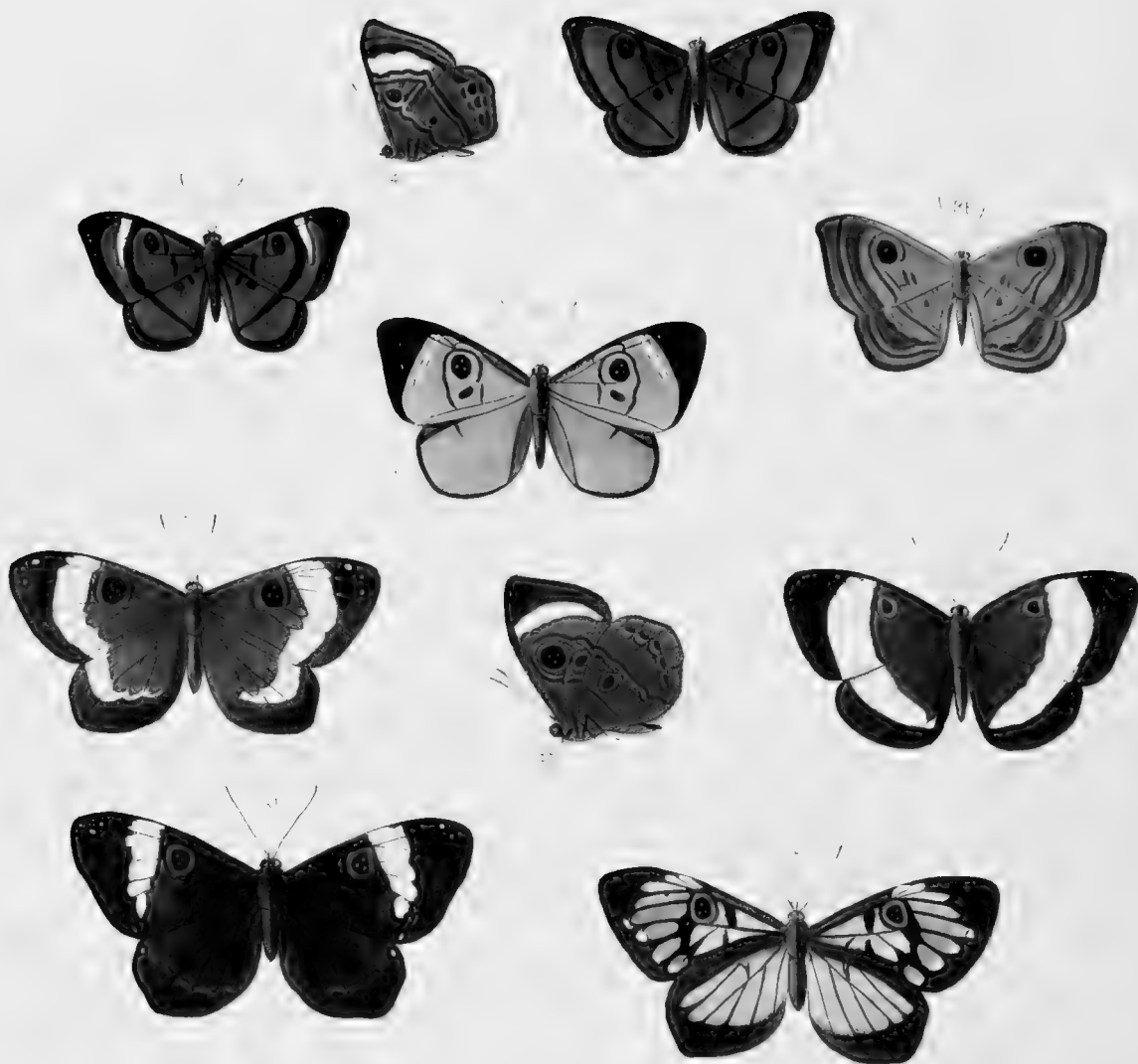
UPPERSIDE. Male grey-green. The black spot of the anterior wing, with three white dots. Two bands and a half between it and the base; four between it and the outer margin. Posterior wing with eight bands; the third band followed by a black spot. All the bands red-brown.

UNDERSIDE as above, except that it is light grey, the submarginal band of the posterior wing with a black spot midway.

The female differs only in being of a light rufous-brown above, and in having the submarginal band of both wings thicker in the middle.

Expan. $1\frac{2}{10}$ in. Hab. Amazon.

In the Collection of Mr. Bates.



1. *Chlorophyll a* (Chl *a*)

2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841.

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ERYCINIDÆ.

MESOSEMIA IX.

MESOSEMIA MARSENA. 80.

UPPERSIDE. Female, dark brown. Anterior wing with the base, which is marked by three black spots, and a broad transverse band beyond the middle (which is divided into eight parts by the nervures) transparent lilac-white: the discal spot black, triangular, bordered by orange and marked by three minute white spots; two submarginal bands of white spots: the first band of eight spots, the outer band of three. Posterior wing transparent lilac-white from the base to beyond the middle: the nervures black.

UNDERSIDE as above, except that both wings have the nervures rufous, and that the posterior wing has a marginal band of white spots.

Exp. $2\frac{1}{10}$ inches. Hab. Ecuador. (Buckley.)

A most elegant species, nearest to *M. Phelina* of Felder.

MESOSEMIA MARSIDIA. 81, 82.

UPPERSIDE. Male, dark brown. Anterior wing with a large black discal spot, marked by three minute spots and bordered with brick-red: crossed beyond the middle by a straight transverse band of white; two minute white spots near the apex and anal angle. Posterior wing crossed by a submarginal band of very indistinct lunular spots: a minute white spot at the apex.

UNDERSIDE as above, except that the nervures of both wings are rufous towards the outer margin, that the anterior wing has a red band across the cell, a submarginal series of white spots and three or four similar spots upon the margin, and that the posterior wing has a marginal series of white spots.

Female rufous-brown, darker near the outer margins: both wings crossed by a common band of white, broadest on the anterior wing, not reaching the anal angle of the posterior wing. Anterior wing with the discal and subapical spots as in the male: on the underside the anterior wing has the marginal and submarginal white spots of the male: the posterior wing has two or three marginal white spots.

Exp. 2 inches. Hab. Ecuador. (Buckley.)

A variety of the female is without the white band of the posterior wing.

MESOSEMIA REBA. 83, 84.

UPPERSIDE. Male, dark blue tinted with green. Both wings crossed near the base by a band (broken on the anterior wing), both crossed beyond the middle by a second band and also by a submarginal band all black: the outer margin brown. Anterior wing with a black discal spot marked by two minute white spots: crossed at the second band by a short band of white.

UNDERSIDE rufous-brown. Both wings crossed before the middle by an undulated band of brown, its outer border rufous: both crossed beyond the middle by a similar band (angular on the anterior wing), its inner border rufous: both crossed by a submarginal band of brown spots bordered inwardly with paler colour. Anterior wing with the discal spot bordered with rufous-orange: the white band broader and longer, bordered outwardly with dark brown. Posterior wing with a small black

discal spot marked by one minute white spot: crossed near the outer margin by some indistinct white spots.

Exp. $1\frac{4}{10}$ inch. Hab. Ecuador. (Buckley.)

MESOSEMIA ZOREA. 85, 86.

UPPERSIDE. Male, green-blue, with the outer margins broadly dark brown. Anterior wing with the black discal spot marked by two white dots: a transverse black band on each side of it. Posterior wing with a black line and spot on the costal margin before its middle and a transverse band of black at the middle.

UNDERSIDE grey-brown. Both wings with the discal black spots each marked by two dots of white, the border broadly rufous: both with a short double band towards the base broken on the anterior wing: both crossed beyond the spots by a pale grey band bordered outwardly with brown: both crossed beyond the middle by a broad band of brown bordered on both sides with grey. Anterior wing with a submarginal brown band. Posterior wing with a series of brown spots crowned with paler colour.

Female on both sides as on the underside of the male.

Exp. $1\frac{1}{2}$ inch. Hab. Ecuador. (Buckley.)

Nearest to *M. Meeda* of Hewitson.

MESOSEMIA LATIFASCIATA. 87.

UPPERSIDE. Male, rufous-brown near the base, dark brown near the outer margins. Both wings crossed by a continuous very broad immaculate white band. Anterior wing with a small black almost triangular discal spot bordered with orange.

UNDERSIDE as above.

Female like the male, except that it is larger and of a paler brown.

Exp. ♂ $1\frac{1}{2}$, ♀ $2\frac{2}{10}$ inches. Hab. Ecuador. (Buckley.)

MESOSEMIA LORUHAMA. 88, 89.

UPPERSIDE. Male, brilliant blue, tinted with green: the margins brown. Anterior wing with a large black discal spot marked by three minute white spots, a black spot below it, and on each side of them a transverse black linear band: the line between them and the base broken where it crosses the median nervure: crossed beyond the middle by a narrow straight short band of white: the apex broadly dark brown. Posterior wing with a black linear spot at the middle of the costal margin.

UNDERSIDE dark brown. Anterior wing with the spots and lines as above, except that the spots are bordered with orange and the lines inwardly with paler brown. Posterior wing with a discal spot marked by two minute white spots, a dark brown transverse band bordered inwardly with paler brown on each side of it: a submarginal band of dark brown spots bordered above with white.

Female like the male, except that the white band of the anterior wing is much broader and extends from the costal margin to the anal angle: that the outer margin of the posterior wing is broadly brown and marked at the apex by a pale linear spot.

Exp. $1\frac{1}{2}$ inch. Hab. Ecuador. (Buckley.)

Nearly allied to *M. Mevania* and also to *M. Macrina* of the Felders. Mr. Rudolf Felder tells me that it is distinct from both of them.

ERYCINIDÆ.

MESOSEMIA X.

MESOSEMIA AMA. 90, 91.

UPPERSIDE. Female, rufous-brown, with the outer margins dark brown. Both wings crossed at the middle by a band of black, and towards the outer margin by a band of white, broadest near the costal margin of the anterior wing, clouded near the anal angle of the posterior wing. Anterior wing with the black discal spot with a rufous border and three minute spots of white: a black spot between it and the base.

UNDERSIDE as above, except that the posterior wing has a small oblong discal spot marked at both ends with white, and between it and the base a short brown band, and that the white band is scarcely seen except near the apex.

Exp. $1\frac{8}{10}$ inch. Hab. Ecuador. (Buckley.)

MESOSEMIA ADIDA. 92, 93.

UPPERSIDE. Female, rufous-brown, the outer margins broadly dark brown. Both wings crossed beyond the middle by a band of white, broadest on the anterior wing. Anterior wing with the black discal spot marked by three distinct white dots, its border rufous, and on each side of it two bands of brown. Posterior wing crossed beyond the middle by two brown bands.

UNDERSIDE as above, except that the posterior wing has a small discal spot marked by two white dots, with two bands of brown between it and the base.

Exp. $1\frac{1}{2}$ inch. Hab. Ecuador. (Buckley.)

This and the last-described species come nearest to *M. Telegone* in the angular form of the posterior wing.

MESOSEMIA MEHIDA. 94, 95.

UPPERSIDE. Male, brilliant blue. Both wings with a submarginal band and the outer margin black.

UNDERSIDE brown. Both wings crossed beyond the middle by a grey band (zigzag on the posterior wing), by a black line bordered on both sides with grey, and by a submarginal band of black spots. Anterior wing with a black discal spot bordered with orange and marked by three minute white spots one with its centre

white, and surrounded alternately by bands of brown, grey, and brown. Posterior wing crossed before the middle by a broad band of brown bordered on each side alternately by bands of grey, brown, grey, and brown, and marked by the discal black spot with a rufous border and two dots of white.

Exp. $1\frac{9}{20}$ inch. Hab. Ecuador. (Buckley.)

MESOSEMIA ZIKLA. 96, 97.

UPPERSIDE. Female, cerulean blue. Anterior wing with the black discal spot marked by one white dot and encircled on both sides by two bands of black (the outer band broad and angular near the anal angle) followed by a broad white band: the outer margin dark brown. Posterior wing crossed by six black bands: the outer margin brown.

UNDERSIDE as above, except that it is grey instead of blue, that the discal spot of the anterior wing is bordered with orange-yellow and has a black spot below it, and that there are two submarginal black lines.

Exp. $1\frac{4}{10}$ inch. Hab. Ecuador. (Buckley.)

MESOSEMIA OZORA. 98, 99, 100.

UPPERSIDE. Male, bright blue. Anterior wing with the black discal spot marked by one minute spot, followed by a short line, by a curved band of black, and by a band of white, beyond which the wing is dark brown. Posterior wing with a spot on the costal margin, four transverse bands and the outer margin dark brown.

UNDERSIDE pale grey and brown. Both wings with a discal black spot with rufous border and marked by two minute white spots. Anterior wing crossed on each side of the discal spot by three bands of brown: the white band as above bordered outwardly with dark brown: a submarginal black line. Posterior wing crossed between the spot and the base by four bands of brown: beyond it by six, the fifth broader than the rest.

Female pale rufous-brown. Crossed beyond the middle by a broad band of white. Posterior wing with an indistinct discal spot: crossed at the middle by four bands of brown and by two submarginal bands of the same colour; the outer margin brown. On the underside it differs little from the male.

Exp. $1\frac{3}{10}$ inch. Hab. Ecuador. (Buckley.)

ERYCINIDÆ.

MESOSEMIA, XI.

MESOSEMIA MYCENE. 101, 102.

Mesosemia Mycene, Hewitson. *Trans. Ent. Soc.* p. 160, 1870.

UPPERSIDE. Male, green. Anterior wing with a short line before the discal spot: the discal spot (which is marked with one minute spot), a linear band beyond it, and the rest of the wing (more than half), black. Posterior wing with the outer margin and nervures near it black.

UNDERSIDE brown. Both wings with a discal spot marked with one minute white spot, bordered with orange and crossed on both sides of it by two brown bands: both wings crossed beyond the middle by a broad band of brown bordered on the anterior wing by paler colour. Anterior wing with a small black spot, below the discal spot, bordered with orange. Posterior wing with the outer margin angular.

Exp. $1\frac{8}{10}$ inch. Hab. Ecuador. (Jorge.)

In the Collection of W. C. Hewitson.

MESOSEMIA MAMILIA. 103, 104.

Mesosemia Mamilia, Hewitson. *Trans. Ent. Soc.* p. 160, 1870.

UPPERSIDE. Male, dark brown. Anterior wing (except the costal margin, which is brown) blue from the base to the middle: a short line before the discal spot, the discal spot which is marked with two minute white spots, and a line beyond it (which is not separate from the brown of the rest of the wing till near the submedian nervure), all black: crossed by a curved band of blue beyond the middle. Posterior wing with the basal half blue, the outer half dark brown traversed by a linear blue band.

UNDERSIDE grey-brown. Anterior wing with the discal spot (which is marked with three minute white spots), and a spot below it, bordered with orange: the line between it and the base longer than above: crossed beyond the middle by a clouded band of white. Posterior wing with the discal spot marked by two minute white spots and bordered with orange, with bands of orange bordered with brown on each side of it: crossed by a central brown band, and by a submarginal series of brown spots both bordered inwardly with dull white: the outer margin angular.

Female (figs. 103, 104) like the male, except that instead of the blue band of the anterior wing, it is crossed by a broad pyriform band of white, and that the posterior wing is crossed before the middle by a linear band of black.

Exp. $1\frac{7}{10}$ inch. Hab. Ecuador. (Jorge.)

In the Collection of W. C. Hewitson.

I am sorry that I cannot figure the male of this species, which, after being described, was broken beyond repair.

MESOSEMIA ZANOA. 105, 106.

Mesosemia Zanoa, Hewitson. *Equatorial Lepidoptera*, p. 41, 1869.

UPPERSIDE. Male, dark brown. Anterior wing with the discal black spot marked by two minute white spots. Posterior wing cerulean blue, with the base and costal margin blue black: the outer margin with a narrow black line, the fringe white.

UNDERSIDE rufous-brown. Anterior wing with the discal spot marked by three dots of white, and encircled by three bands of black: crossed near the outer margin by a band of white. Posterior wing with a small black discal spot with three trans-

K K

verse bands of dark brown on each side of it: the outer margin broadly pale blue, traversed by a broken line of brown.

Exp. $1\frac{9}{20}$ inch. Hab. Ecuador. (Rio Rusino, Buckley.)

In the Collection of W. C. Hewitson.

MESOSEMIA MUSTELA. 107, 108.

Mesosemia Mustela, Hewitson. *Trans. Ent. Soc. p.* 161, 1870.

UPPERSIDE. Female, rufous-brown. Anterior wing with the discal spot black marked by three minute white spots, with, on each side of it, two linear brown bands: crossed beyond the middle by a band of white from the costal margin to the anal angle nearly where it is narrow and bordered inwardly with brown: the wing beyond it dark brown. Posterior wing angular at the outer margin, crossed near the base by two linear very indistinct bands, and beyond the middle by four bands of brown, the two inner bands nearly straight, the outer ones parallel to the margin, which is also brown.

UNDERSIDE as above, except that the posterior wing has a discal spot, that there are three linear bands beyond the middle, and that the two bands parallel to the outer margin are broken into spots.

Exp. $1\frac{4}{10}$ inch. Hab. Ecuador. (Gualaquiza.)

In the Collection of W. C. Hewitson.

Nearly allied to *M. Adida*.

MESOSEMIA AHAVA. 109, 110.

Mesosemia Ahava, Hewitson. *Equat. Lep. p.* 41, 1869.

UPPERSIDE. Male, dark brown. Anterior wing with the black discal spot marked by three minute white spots: a very slight indication of a pale brown band before the apex. Posterior wing with the outer half white bordered above with grey crossed by two black lines, a black spot at the apex: the outer margin black, very narrow, the fringe white.

UNDERSIDE paler brown. Anterior wing with the discal spot as above, but with a rufous border and encircled by two black bands: crossed from margin to margin by a submarginal band of white. Posterior wing with a minute black discal spot with three bands of black on each side of it: broadly white towards the outer margin (which is black) and marked by some dark brown spots.

Exp. $1\frac{5}{10}$ inch.

Near to *M. Metope*, and also to *M. Olivencia* of Bates.

MESOSEMIA MANCIA. 111.

Mesosemia Mancía, Hewitson. *Trans. Ent. Soc. p.* 159, 1870.

UPPERSIDE. Female, dark brown. Anterior wing blue from the base (except the costal margin, which is brown) to a large *central quadrate white spot*: the discal spot indistinct, marked with three minute white spots. Posterior wing much produced at the middle of the outer margin, blue broadly bordered with brown.

UNDERSIDE as above, except that it is entirely brown, paler, that the anterior wing has a short band before the discal spot, that the posterior wing has a discal spot marked by two minute white spots, with an indistinct brown band on each side of it bordered with paler colour.

Exp. 2 inch. Hab. Ecuador. (Jorge.)

In the Collection of W. C. Hewitson.

ERYCINIDÆ.

MESOSEMIA XII



112 113 MESOSEMIA ACUTA
 114 115 MESOSEMIA MAERA
 116 117 MESOSEMIA MATATHA.

118 119 MESOSEMIA MESOBA
 120 121. MESOSEMIA METURA
 122.123 MESOSEMIA MESSALA

ERYCINIDÆ.

MESOSEMIA. XII.

MESOSEMIA ACUTA. 112, 113.

UPPERSIDE. Male, black. Anterior wing with the apex acute: the costal and outer margins rufous. Posterior wing with the outer margin rufous.

UNDERSIDE dark rufous-brown. Both wings with the discal black spot marked with three minute white spots on the anterior wing, with two on the posterior wing. Both wings crossed at the middle and near the outer margin by bands of dark brown.

Exp. $1\frac{11}{20}$ inch. Hab. Brazil. (Rogers.)

In the Collections of W. W. Saunders and W. C. Hewitson.

MESOSEMIA MAERA. 114, 115.

UPPERSIDE. Male, grey-brown. Anterior wing with the black discal spot with three minute white spots and rufous border, preceded near the base by two bands of brown, and followed beyond the middle by a band of white and by a submarginal line of black marked midway by a black spot. Posterior wing grey near the base, white beyond, with a minute black discal spot, and crossed by eight bands of dark brown: the submarginal band marked midway by a black spot: the outer margin brown.

UNDERSIDE as above.

Exp. $1\frac{4}{10}$ inch. Hab. Trinidad.

In the Collection of W. W. Saunders.

Nearest to *M. Methion*, of which it may possibly be only a variety.

MESOSEMIA MATATHA. 116, 117.

UPPERSIDE white. Both wings crossed transversely by four rufous linear bands. Anterior wing with a minute brown linear discal spot and some minute black spots near the apex. Posterior wing with some minute black spots on the submarginal band.

UNDERSIDE as above, except that the bands are much more distinct, and bordered with grey, and that the posterior wing has a small black discal spot.

Exp. 1 inch.

In the Collection of W. W. Saunders.

MESOSEMIA MESOBA. 118, 119.

UPPERSIDE. Male, cerulean blue. Anterior wing with the discal spot black, marked by one minute white spot : crossed by six linear bands : two near the base, two beyond the middle, and two submarginal. Posterior wing crossed beyond the middle by four linear black bands : the outer margins of both wings dark brown.

UNDERSIDE pale grey-brown. Anterior wing as above, except that it is crossed beyond the middle by a broad band of white. Posterior wing with a minute black discal spot : crossed by nine grey-brown bands.

Exp. $1\frac{1}{10}$ inch. Hab. Ecuador.

In the Collection of W. C. Hewitson.

MESOSEMIA METURA. 120, 121.

UPPERSIDE. Male, cerulean blue. Both wings with three bands beyond the middle and the outer margins dark brown. Anterior wing with a black discal spot marked by one minute white spot.

UNDERSIDE rufous. The discal spot marked by three minute white spots : two small brown spots below it, two bands between it and the base, and four between it and the outer margin. Posterior wing with a discal spot marked by two minute white spots ; crossed by nine rufous-brown bands : the outer margin brown.

Exp. $1\frac{2}{10}$ inch.

In the Collection of W. W. Saunders.

MESOSEMIA MESSALA. 122, 123.

♀ *Mesosemia Messala*. Hewitson. *Trans. Ent. Soc.*, p. 161, 1870.

UPPERSIDE. Male, brilliant dark blue : the costal margin and apex of the anterior wing dark brown, the discal black spot marked by two white spots : crossed beyond the middle from the costal margin to the middle of the wing by a narrow band of white.

UNDERSIDE dark brown, the discal spot marked by three minute white spots : the transverse white band broad and extended to the anal angle.

Female, like the male, except that the transverse white band is broad on both sides, and extends, though indistinctly, half-way across the posterior wing.

Exp. $1\frac{7}{10}$ inch. Hab. Ecuador. (Gualaquiza.)

In the Collection of W. C. Hewitson.

ERTICIA EURYGONA



1894

Printed by Hullmandel & Walcott

- | | |
|--------------------------------|--------------------------------|
| 1 2 3 EURYGONA FELOR Doubleday | |
| 4 5 6 EURYGONA EUMEDIA | 6 7 EURYGONA EUMEDIA |
| 8 9 EURYGONA EUMEDIA | 10 11 EURYGONA EURITEUS Cramer |

ERYCINIDÆ.

EURYGONA. I.

EURYGONA. *Boisduval. Doubleday.*

EURYGONA PELOR. 1, 2, 3.

Eurygona Pelor. Doubleday—Brit. Mus. Cat. (undescribed).

UPPERSIDE. Male dark blue or purple. Anterior wing with the costal margin, a large space at the apex, and the outer margin, brown. Posterior wing dentated; the inner margin brown.

UNDERSIDE light olive-brown. Both wings crossed beyond the middle by a brown line, straight on the anterior wing, curved and dentated on the posterior, not meeting where the wings meet. Posterior wing with a broad border of scarlet on the outer margin, and a submarginal line of nine black and white spots, the fourth from the costal margin larger than the rest.

FEMALE. Upperside light brown, slightly marked with orange on the dentations of the posterior wing. Underside as in the male.

Expan. $1\frac{1}{10}$ in. Hab. River Amazon.

In the Collection of Mr. Bates.

EURYGONA EUBŒA. 4, 5.

UPPERSIDE. Male, light blue; the costal margin of both wings, and the apex and outer margin of the anterior wing, black.

UNDERSIDE rufous, crossed beyond the middle by a line of dark red-brown, slightly curved on the anterior wing, curved and sinuated on the posterior wing, not meeting where the wings meet. Posterior wing dentated with a submarginal line of eight black and white spots (the outer ones indistinct), the fourth from the costal margin largest.

Expan. $1\frac{1}{10}$ in. Hab. River Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

EURYGONA EUMEDIA. 6, 7.

UPPERSIDE. Male dark brown. Posterior wing dentated.

UNDERSIDE brown with a purple tint, crossed beyond the middle by a cloud of darker colour, crossed on the middle by a line of scarlet, slightly curved on the

anterior wing, curved and dentated on the posterior wing, not meeting where the wings meet. Posterior wing with the outer margin scarlet (broadest at the anal angle) and a submarginal line of nine black and white spots of *equal* size.

FEMALE differs only in being lighter on both sides.

Expan. $1\frac{2}{10}$ in. Hab. River Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

EURYGONA EUTÆA. 8, 9.

UPPERSIDE. Female light brown. Anterior wing with a large oval spot of scarlet before the middle. Posterior wing with the lower half, and a spot on the middle of the costal margin, also scarlet.

UNDERSIDE light orange; the outer margins orange, broadest on the posterior wing; both wings crossed beyond the middle by alternate bands of black and white, three of black, two of white, the outer black band of the posterior wing broken; anterior wing with a line of black and white at the base.

Expan. 1 in. Hab. River Amazon.

In the Collection of Mr. Bates.

This species is closely allied to *P. Gelon* of Stoll's Supplement to Cramer, figured in Plate 5.

EURYGONA GELON.

P. Gelon. Stoll—*Supplement to Cramer.* Plate 5.

EURYGONA SABINUS.

P. Sabinus. Stoll—*Supplement to Cramer.* Plate 9.

EURYGONA EURITÆUS. 10, 11.

♂ *P. Euritæus,* Cramer. Plate 152.

UPPERSIDE. Female light brown. Posterior wing with a large spot of orange on the outer margin, from the middle to the anal angle.

UNDERSIDE with the base orange; both wings crossed by alternate bands of light brown and white, three white, two brown. Anterior wing with the outer margin also brown, intersected by a narrow band of orange. Posterior wing with the third band of white broken, and followed on the outer margin by a broad border of orange, marked with some irregular black spots.

Expan. $1\frac{2}{10}$ in. Hab. River Amazon.

♀ In the Collection of Mr. Bates.

All the examples of the male of this species which I have seen have an oval spot of blue directly across the wing, and not curved inwardly, as in Cramer's figure.

There are varieties of the female in which the orange spot on the outer margin of the upperside of the posterior wing is only a narrow line, and others are entirely without it.

THE BUTTERFLY

BY J. H. W. L.



THE BUTTERFLY

BY J. H. W. L.

ERYCINIDÆ.

EURYGONA. II.

EURYGONA UZITA. 12, 13.

UPPERSIDE. Male purple brown. Anterior wing with a large spot of light silvery blue near the base. Posterior wing bordered with orange on the outer margin from its middle to the anal angle.

UNDERSIDE rufous brown. Both wings with a black and white line at the base, both crossed by two bands of white, the second band of the posterior wing curved and bordered with black, followed nearer the outer margin by another curved unequal band of white and black.

Expan. $1\frac{1}{2}$ in. Hab. River Amazon.

In the Collection of W. C. Hewitson.

EURYGONA EUCRITUS. 14, 15, 16.

UPPERSIDE. Male dark brown.

UNDERSIDE with the base orange, both wings crossed by alternate bands of black and white, three black, two white, followed first by a band of orange, then by one of black, white, black and again orange near the outer margin, which is also black. The last-mentioned black and white bands are broken at the middle of the posterior wing, and marked with a very black spot; the other bands above are much curved near the inner margin of the same wing.

FEMALE with the upperside light brown, margined with white; the underside differs from the male in being without any of the orange, except a narrow border on the outer margin near the anal angle of the posterior wing, and a large spot above it on the inner margin.

Expan. $1\frac{3}{10}$ in. Hab. River Amazon.

In the Collection of Mr. Bates.

This species reminds one of a section of the genus *Thecla*, in which are the *Battus* of Cramer and *Euricides* of Hubner.

EURYGONA EUSEPUS. 17.

UPPERSIDE. Male dark purple brown.

UNDERSIDE silvery white, the margins rufous. Both wings crossed beyond the middle by a rufous line, oblique, direct, but interrupted on the anterior wing, curved and broken apart on the posterior wing. Posterior wing with a submarginal line of seven black spots, the third from the costal margin largest.

Expan. $1\frac{2}{10}$ in. Hab. Rio Janeiro.

In the Collection of W. C. Hewitson.

EURYGONA EUMENES. 18.

UPPERSIDE. Male dark brown. Posterior wing slightly purple.

UNDERSIDE silvery white, the margins rufous. Both wings crossed by a nearly continuous curved rufous line, slightly broken near the inner margin of the posterior wing. Posterior wing with a submarginal line of seven black spots, minute except the third from the costal margin.

Expan. $1\frac{3}{10}$ in. Hab. River Amazon.

In the Collection of Mr. Bates.

This species is very closely allied to the last, differing from it only in the direction of the rufous line as it crosses the wings.

EURYGONA URITES. 19.

UPPERSIDE. Male brown, slightly tinted with purple.

UNDERSIDE light ash-brown, crossed beyond the middle by a continuous curved rufous line, dentated on the posterior wing. Posterior wing with the outer margin orange, and a submarginal line of nine black and white spots, the third the largest.

Expan. $1\frac{3}{10}$ in. Hab. River Amazon.

In the Collection of Mr. Bates.

EURYGONA GELANOR. 20, 21.

P. Gelanor. Cramer. Plate 336.

UPPERSIDE. Male brown, glossed with purple or blue, chiefly near the outer margin of the posterior wing, costal margin of the anterior wing rufous.

UNDERSIDE rufous, sometimes tinted with purple. Both wings crossed beyond the middle by a continuous curved rufous line, sometimes wanting on the anterior wing. Posterior wing with a submarginal line of nine black spots minute except the third from the costal margin.

Expan. $1\frac{3}{10}$ in. Hab. River Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

I have figured this species to show its variation and the form of the posterior wing which is much too round in Cramer's figure.

EURYGONA URIA. 22.

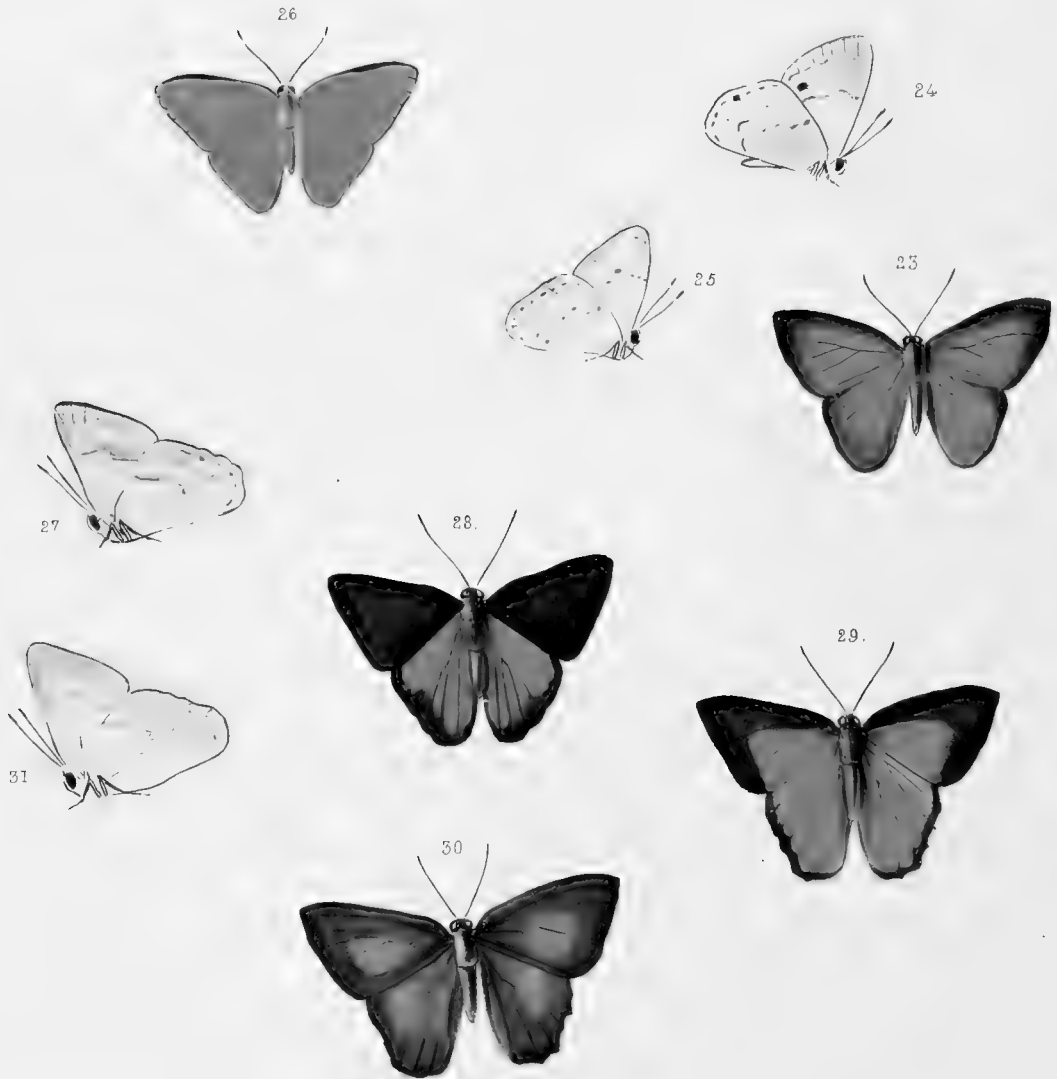
UPPERSIDE. Male, brown, the margins purple.

UNDERSIDE rufous brown, tinted with purple. Both wings crossed at the middle by a continuous brown line. Posterior wing with a submarginal line of six or seven indistinct spots, except the third, which is large and triangular.

Expan. $1\frac{4}{10}$ in. Hab. River Amazon.

In the Collection of Mr. Bates.

EURYCINIDAE.
EURYGONA III



W. C. Hewitson, del. et lith. 1854

Printed by Hullmandel & Walton.

23 24. EURYGONA OPALESCENS
25 26. EURYGONA OPALINA Westwood

27 28 EURYGONA EUPHAES.
29 30 31. EURYGONA UTICA

ERYCINIDÆ.

EURYGONA. III.

EURYGONA OPALESCENS. 23, 24.

UPPERSIDE. Male: rufous. Anterior wing with the costal and outer margins and apex broadly bordered with brown. Posterior wing with the apex brown. Both wings glossed with golden green.

UNDERSIDE white, clouded with darker colour. Anterior wing crossed at the middle by a broken rufous-line; a black spot near the anal angle. Posterior wing crossed before the middle by a broken line of three rufous and two black spots. Both wings with an indistinct cloud across beyond the middle, and a submarginal line of lunular black spots, one near the middle of the posterior wing larger than the rest.

Expan. $1\frac{9}{20}$. Hab. Brazil.

In the Collection of W. C. Hewitson.

EURYGONA OPALINA. 25, 26.

E. Opalina. Westw. Gen. Diur. Lep. Page 438.

UPPERSIDE. Male: orange, with the costal margin beyond the middle black; glossed with the prismatic colours.

UNDERSIDE white, clouded on the outer margins. Anterior wing crossed at the middle by a broken line of rufous spots. Posterior wing with a spot near the costal margin before the middle, three spots in the centre and three towards the anal angle, rufous. Both wings crossed beyond the middle by an indistinct cloud of neutral colour, and a submarginal line of minute black lunular spots, one in the middle of the posterior wing larger than the rest.

Expan. $1\frac{7}{20}$ in. Hab. Amazon.

In the Collection of Mr. Bates.

I have not attempted to figure this species in its greatest beauty. When its head is to the light, and you see it as you do a rainbow with the sun behind you, it is lit up with a blaze of metallic light, glittering like a Morpho, and of all the colours of the prism.

EURYGONA GEMELLUS.

H. Gemellus. Fabr.—P. Teleclus Stoll. Plate 5.—E. Catoleuce. Hubn. Zut.
Fig. 207, 208.

EURYGONA EUPHAES. 27, 28.

UPPERSIDE. Male: anterior wing red-brown. Posterior wing orange, clouded with rufous-brown from the costal margin to the median nervure.

UNDERSIDE silvery white. Anterior wing clouded with neutral colour from the middle (where it is crossed by a broken line) to the outer margin. Posterior wing with a faint curved line at the middle, a second between it and the outer margin, and some indistinct submarginal spots.

Expan. $1\frac{1}{2}$ in. Hab. Amazon.

In the Collection of W. W. Saunders.

EURYGONA UTICA. 29, 30, 31.

UPPERSIDE. Male: orange. Anterior wing with the costal and outer margins and apex broadly bordered with red-brown. Posterior wing with the outer margin and the nervures where they join it red-brown.

UNDERSIDE silvery white, clouded towards the margins; crossed a little beyond the middle of the anterior wing, at the middle of the posterior wing, by a faint zigzag rufous line. Both wings with some indistinct spots near the outer margins.

FEMALE: rufous-brown above, with a central spot of orange on each wing.

Expan. $1\frac{6}{10}$ in. Hab. Brazil.

In the Collection of W. W. Saunders.

EURYGONA THUCIDIDES.

H. Thucidides. Fabr.—P. Nycha Hubn. Zut. Fig. 279, 280.



EURYGONAE EUNCEI



Levitson, del. et lith. 1854

Printed by Hullmandel & Walton

1. EURYGONA EUPLOEA 36 37 EURYGONA MILAS Fabricius
 2. EURYGONA EUNCEUS 38 39 40 EURYGONA EURYAS
 3. EURYGONA AFRAS Chapuis

ERYCINIDÆ.

EURYGONA. IV.

EURYGONA EUPLŒA. 32, 33.

UPPERSIDE orange. Anterior wing, with the costal margin beyond the middle, the apex, and outer margin, broadly brown. Posterior wing with all the margins brown; the outer margin deeply sinuated inwardly.

UNDERSIDE lilac, with a curved line across the middle, a line of indistinct spots beyond it, and the outer margins rufous. Anterior wing with four central spots of light yellow, one above the rufous line, three below it touching it and each other. Posterior wing with one spot below the line, and a submarginal line of minute black spots, the middle spot larger than the rest.

Expan. $1\frac{2}{10}$ in. Hab. Brazil.

In the Collection of the British Museum.

EURYGONA LABDACUS.

P. Labdacus. Cram. Plate 336.

EURYGONA MIDAS. 36, 37.

P. Midas. Fabr.—P. Crotopus. Cram. Plate 336 ♂, 390 ♀.

At Fig. 37, I have given a variety of the Male of this species from the Collection of Mr. Bates, the underside of which is almost white.

Fig. 36 is a Female, of which Cramer has given a very bad figure. He has also reversed the sexes.

EURYGONA EUNÆUS. 34, 35.

UPPERSIDE. Male: dark brown. Anterior wing with an oval, central, oblique spot of orange.

UNDERSIDE ash-colour; crossed before the middle by a broken line of bright orange (not meeting where the wings meet). Posterior wing closely undulated with black from a little beyond the middle to near the outer margin, where it is bordered by a line of silver followed by a line of orange close to the margin which is white. Near the middle of the margin a large black spot, bordered with orange. Anterior wing with a line of silver at the anal angle near the outer margin.

Expan. $\frac{19}{20}$ in. Hab. Amazon.

In the Collection of W. W. Saunders.

55.

EURYGONA EUORAS. 38, 39, 40.

UPPERSIDE. Male: black. Anterior wing with a semicircular spot on the outer margin, posterior wing with the costal margin, brilliant dark-blue.

UNDERSIDE rufous, clouded towards the outer margin; a continuous band of orange across the middle unbroken on the posterior wing. Posterior wing with a line of black spots near the outer margin, one near the middle large, the others minute, their outer edges white, with a line of orange from each to the central band.

FEMALE: ash-brown, darker towards the outer margins. Anterior wing with a band of brown across the middle. Posterior wing with the submarginal black spot seen through. Underside ash-brown, marked as in the Male, but lighter.

Expan. $1\frac{1}{2}$ in. Hab. Amazon.

In the Collection of W. W. Saunders.

Very closely allied to *Arbas* of Cramer, this species has a brilliant blue gloss on the outer margin of the anterior wing, and the costal margin of the posterior wing. *Arbas* has a purple gloss on the outer margin of both wings. This species has the band on the underside of the posterior wing continuous; in *Arbas* it is broken in the middle. They both have the submarginal line of black spots; but in *Arbas* they are sometimes wanting between the large spot and the anal angle, and are replaced by a continuous white line. The Female of *Arbas* does not differ from that of *Euoras* except as to the band of the underside. Both of the males have a peculiarity of colouring which I have noticed in very few Butterflies. If you wish to see the bright colours to perfection, you must turn the insects with their heads from the light; and in this position I have coloured them: the colours are invisible in any other light.

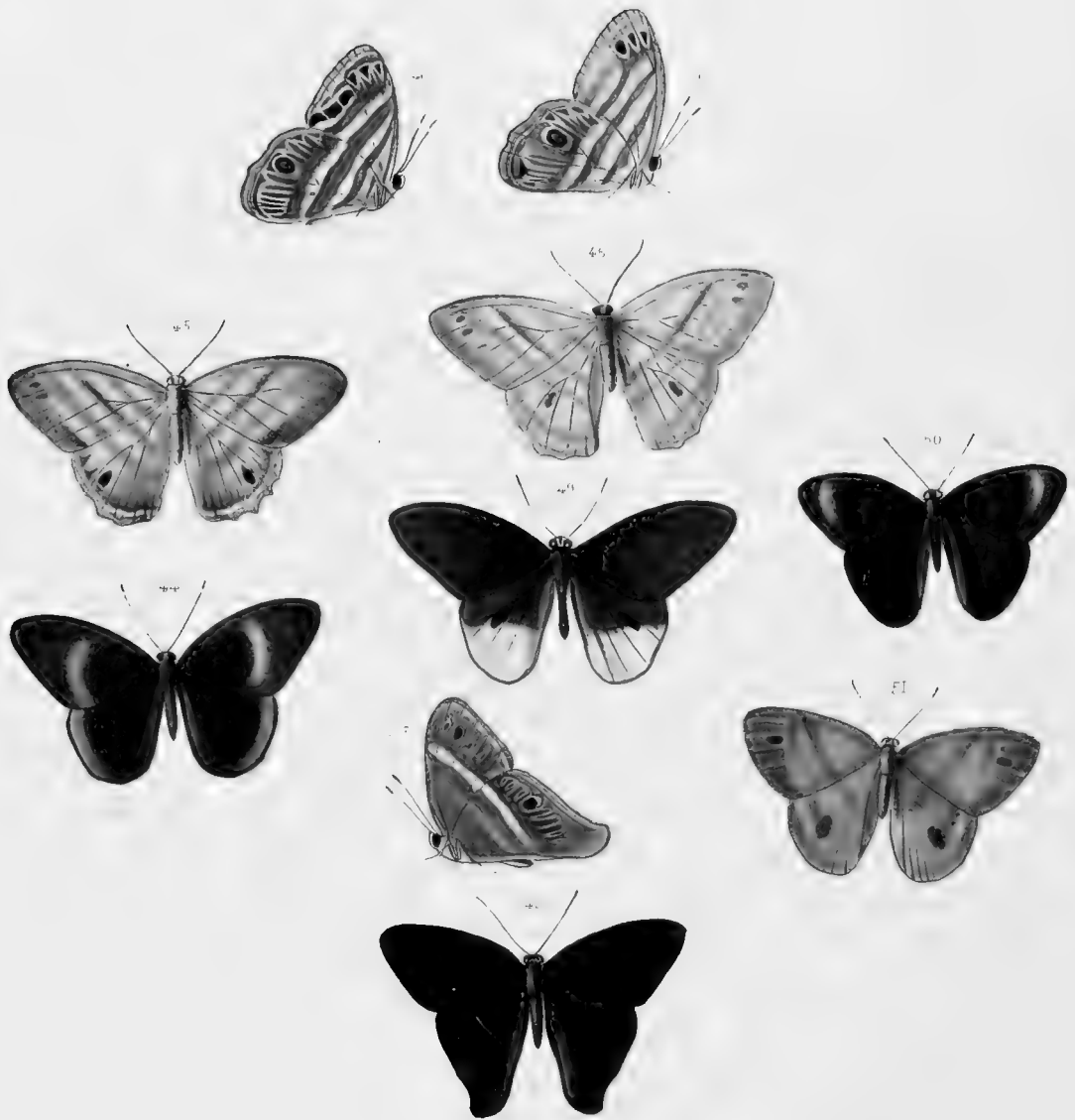
EURYGONA ARBAS. 41.

P. Arbas. Cramer. Plate 379.

EURYGONA ANICA.

E. Anica. Boisd. in Herrich Schæffer *Lep. Exotic.* Figs. 31, 32.

ERYCINIDÆ.
EURYGONA. V



13. Beatus n. del. et lit. 1875.

Printed by Rudolph and S. Watson.

45. E. EURYGONA LUDLOWI 46. E. EURYGONA FREDICA
47. E. EURYGONA EULYCHUS 48. E. EURYGONA CRIPITA

ERYCINIDÆ.

EURYGONA. V.

EURYGONA EUODIAS. 42, 43.

UPPERSIDE. Male black. The whole of the anterior wing, and the costal margin of the posterior wing, of a brilliant blue, when held sideways to the light.

UNDERSIDE light brown. Both wings crossed at the middle by a broad band of crimson, traversed by a band of lilac. Anterior wing with a row of oblong black spots, bordered with yellow, near the outer margin; two near the apex much larger than the rest. Posterior wing, with the outer margin and anal angle (which is greatly produced), crimson. A chain of oblong spots of yellow, with their centres black, near to, and at right angles with, the outer margin; the middle spot large, bordered below with white. A line of silver near the outer margin. The outer half of both wings glossed with brilliant lilac, when held sideways to the light.

Expan. $1\frac{6}{10}$ in. Hab. Amazon.

In the Collection of Mr. Bates.

EURYGONA EUTYCHUS. 44, 45, 46.

P. Orfita. Cramer. Plate 112, Figs. D and E.?

UPPERSIDE. Male black. Anterior wing crossed at the middle by an indistinct band of lilac. Posterior wing, with the outer margin of the same colour.

UNDERSIDE red-brown. Both wings, with three transverse bands before the middle, and one near the outer margin, lilac-white. Anterior wing, with three sagittate black spots near the apex, and between them and the inner angle, *a curved band of black*, all bordered with lilac. Posterior wing, with a chain of four sagittate spots and near the anal angle, lines of white at right angles with the outer margin; also, a large round central spot of rich purple, bordered with yellow above, and white below, *placed near to the outer margin*.

Female light brown. Both wings, with indistinct bands (seen through), and the outer margin, darker brown. Posterior wing, with a black spot *near the outer margin*, and a submarginal line of white. Underside as in the male, but much lighter.

Expan. $1\frac{3}{20}$ to $1\frac{6}{20}$ in. Hab. Amazon.

In the Collection of W. W. Saunders and W. C. Hewitson.

Cramer has figured two species under the name of *Orfita*. I have applied that name to his Fig. F, which is the insect here given at Figs. 50 and 51. I have some doubt whether his Figs. D and E of the same Plate are intended for the Butterfly to which I have given the name of *Eutychus*. I think they are, although he does not represent the band which crosses the anterior wing, which may be sometimes wanting, as in *E. Orfita*.

EURYGONA PHEDICA. 47, 48, 49.

Eurygona Phedica. Boisduval. Spec. Gen. Lep. Plate 21.

UPPERSIDE. Male dark brown; the lower half of the posterior wing lilac-white (beautifully lit up with lilac when turned sideways to the light).

UNDERSIDE lilac. Both wings with three transverse bands of red-brown. Anterior wing, with three sagittate spots of black, bordered with yellow near the apex; *a curved rufous band* between them and the inner angle; a line below them and the outer margin also rufous. Posterior wing, with a chain of sagittate yellow spots at right angles with the outer margin; two black spots near the anal angle; and a large round central spot of rich purple, bordered with yellow above, with white below, and, *at a distance from the margin*; a submarginal silvery line.

Female light lilac-brown. Both wings with indistinct bands (seen through), and the margins darker. Anterior wing with a short transverse band of brown before the middle. Posterior wing with a black oblong spot *at a distance from the outer margin*. Underside as in the male, but lighter.

Expan. $1\frac{8}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

EURYGONA ORFITA. 50, 51.

P. Orfila. Cramer. Plate 112, Fig. E.

UPPERSIDE. Male black; glossed with purple when held sideways to the light; with sometimes an indistinct band of lilac near the apex of the anterior wing.

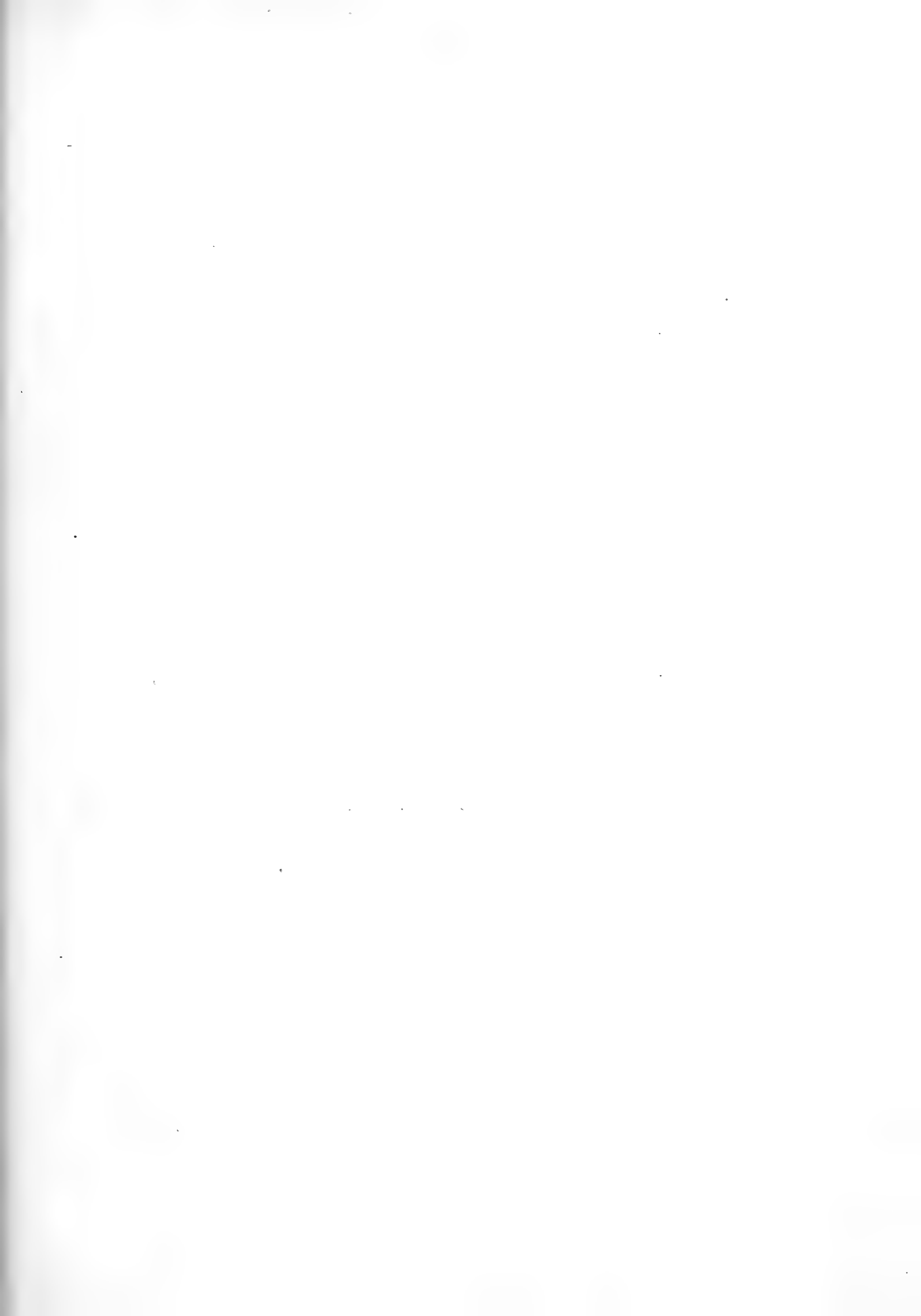
UNDERSIDE exactly as in *E. Euodias*.

Female light brown. Anterior wing with an oblique band before the middle; a second band of lighter colour at an acute angle with the last and the outer margin (which is broad) darker brown. Posterior wing with a black spot towards the outer margin; a band between it and the costal margin; and the outer margin darker brown. Underside as in the male, but lighter.

Expan. $1\frac{4}{10}$ to $1\frac{6}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

The male of this species and of *E. Euodias*, with its singular produced posterior ring, are precisely alike underside.



EURYGONIDAE.
EURYGONA.



W C Hewitson del et lith 1856

Printed by Hullmandel & Walton

52 EURYGONA EULIONE. 53.54 EURYGONA EURYONE

55 56 57 58 59 60 EURYGONA MYSINIUS

ERYCINIDÆ.

EURYGONA. VI.

EURYGONA EULIONE. 52.

UPPERSIDE. Female brown.

UNDERSIDE light brown. Both wings crossed at the middle by a direct band of red brown, followed by an indistinct curved band of brown. Posterior wing with a central black spot, bordered with yellow above, with white below, and, *at a distance from the outer margin*, with a line of black between it and the costal margin, and three indistinct black lines with white at their lower extremities, near the anal angle, and at right angles with the outer margin, which is clouded with brown.

The male differs only in being of a darker brown, and in having the wings narrower.

Expan. $1\frac{2}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

This species, though greatly resembling the series which I have given above, is abundantly distinct; the transverse band is more direct and higher on the wing, and the black spot of the posterior wing is *further from the outer margin*.

EURYGONA EURYONE. 53, 54.

UPPERSIDE. Female light brown, with the outer margin, and two indistinct transverse bands, darker brown. Each wing with a spot of darker brown near to the outer margin midway.

UNDERSIDE lilac-brown. Both wings crossed by three bands of red-brown; their outer margins rufous. Anterior wing with a third band of red-brown in the form of three triangular spots near the apex, and with a round spot of black midway. Posterior wing, below the last transverse band, dark-brown, closely powdered with white, with a submarginal row of black lunular spots, bordered below with silvery white.

Expan. $1\frac{3}{10}$ to $1\frac{4}{10}$ in. Hab. Amazon.

In the Collection of W. W. Saunders.

EURYGONA MYS. 55, 56, 57, 58, 59, 60, 61.

E. Mys. Boisduval.—Herrich Schæffer *Lep. Exot.* Figs. 37, 38, var.

UPPERSIDE. Male (Fig. 57) dark-brown.

UNDERSIDE light lilac brown. Both wings crossed near the middle by a band of red-brown, followed to the middle of the posterior wing by an indistinct band of brown. Posterior wing, with several rufous-yellow spots, marked with sagittate and linear spots of black; some of them bordered below with silvery white, one towards the middle large and sometimes bifid.

Female differs only in being of a lighter brown, and in having the wings broader.

Male varieties, 55, 56.

Female varieties, 58, 59.

Expan. $1\frac{1}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

I have no doubt that all the varieties which I have figured represent the species figured by Herrich Schæffer in his *Lep. Exot.* I think that they are probably referable to the *P. Hyginus* of Stoll; but as he says that the wings of his insect are crossed by two bands of the same colour—"d'un jaune brunâtre"—I have thought it best to adopt the name of Boisduval.

PLATE I
DORIS - L. 1817
PLATE II



PLATE I. Doris. 1817.

PLATE II. Doris. 1817.

ERYCINIDÆ.

EURYGONA. VII.

EURYGONA EUGEON. 62.

UPPERSIDE. Male dark brown. The apex of the anterior wing lighter.

UNDERSIDE lighter brown, tinted with lilac. Both wings crossed transversely by two bands of brown and a row of small indistinct spots near the outer margin (scarcely seen on the anterior wing).

Female differs only in being of a much lighter brown.

Expan. $1\frac{7}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

EURYGONA EURYPUS. 63.

UPPERSIDE. Male dark brown.

UNDERSIDE lilac-brown. Both wings crossed transversely, at the middle, by a band of red-brown. Posterior wing crossed beyond the middle by a second band of the same colour. Both wings with some small indistinct spots near the outer margin.

Expan. $1\frac{4}{10}$ in. Hab. Amazon.

In the Collection of Mr. Bates.

EURYGONA EUBOTES. 64.

UPPERSIDE. Male dark brown. The anterior wing, and the posterior wing from its costal margin to the middle, glossed with blue.

UNDERSIDE light brown tinted with lilac. Both wings crossed by a transverse line of red-brown (broken where the wings meet). Posterior wing with a sub-marginal row of small triangular spots (white at the base, black at the point), the middle spot larger than the rest.

Expan. $1\frac{5}{10}$. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

EURYGONA EUHEMERUS. 65, 66.

Eurygona Euhemerus. Doubleday, *British Museum Catalogue*.

UPPERSIDE. Female sometimes of a uniform brown, sometimes with a large central spot of orange on the anterior wing.

UNDERSIDE rufous. Both wings crossed at the middle by a continuous curved line of red-brown. Posterior wing with a submarginal row of small white spots, touched with black.

Expan. $1\frac{7}{10}$. Hab. Amazon.

In the Collection of W. W. Saunders.

EURYGONA CLESA. 67.

E. Clesa. Boisduval. *MS.*

UPPERSIDE. Male dark brown, glossed with blue.

UNDERSIDE rufous, tinted with lilac; both wings crossed at the middle by a continuous band of red-brown (broad on the anterior wing).

Expan. $1\frac{1}{2}$ in. Hab. Brazil.

In the Collection of Dr. Boisduval.

EURYGONA EUBAGES. 68, 69.

UPPERSIDE. Female, sometimes of a uniform light brown; sometimes crossed near the middle by a broad, ill-defined band of white, extending from the centre of the anterior wing to the inner margin of the posterior wing.

UNDERSIDE lighter brown; the transverse band commencing at the costal margin of the anterior wing. Both wings with, near the outer margin, a row of lunular brown spots bordered with white, posterior wing with the middle spot large and black.

Expan. $1\frac{9}{10}$ in. Hab. Amazon.

In the Collection of Mr. Bates.

EURYGONA EUROMUS. 70, 71.

UPPERSIDE. Male black, with a large space of dark blue from the inner margin to the centre of both wings. The fringe white.

UNDERSIDE rufous, glossed with lilac. Both wings crossed, beyond the middle, by a continuous waved line of red-brown. Posterior wing with three or four small indistinct spots of white near the anal angle.

Expan. $1\frac{3}{10}$ in. Hab. Amazon.

In the Collection of W. W. Saunders.

It would not surprise me if this should prove to be the male of *E. Euhemerus*.



FRIGILIOIDE.
EURYGONA VIII



W. H. Edwards, del. et lith. 1866.

Printed by Hurlimandel & Walton

- 73 75 EURYGONA ZARA ♀.
74 76 EURYGONA ZENA 79 EURYGONA GYDA
77 78 EURYGONA MAZACA 80 81 EURYGONA DORINA

EURYCINIDÆ.

EURYGONA. VIII.

EURYGONA ZARA. ♀ 72, 73.

♂ *E. Zara*, Hewitson in *Gen. Diur. Lep.*, Pl. 71, fig. 7.

UPPERSIDE. Male dark brown, glossed with blue from the base to beyond the middle; the outer half of the posterior wing dark blue; the margin spotted with white.

UNDERSIDE. Both wings light grey-brown, surrounded by a broad band of orange, followed outwardly by bands of black and white alternately, three of each; separated midway on the anterior wing by a band of orange; divided on the posterior wing by white nervures.

Female (figs. 72, 73) dark brown, lighter towards the base, tinted with purple on the posterior wing. Anterior wing crossed beyond the middle by a large oval white spot. Underside as in the male, except that it has the white spot as above, and less of the orange band of the anterior wing.

Expan. $1\frac{6}{10}$ in. Hab. Brazil.

In the Collection of W. C. Hewitson.

EURYGONA ZENA. 74, 75, 76.

UPPERSIDE. Male black. Anterior wing, except the costal and outer margins, carmine. Posterior wing with a carmine spot near the middle of the outer margin.

UNDERSIDE grey-brown from the base to the middle; beyond the middle black, crossed by two bands of white; the outer band of the posterior wing broken in two places and projected towards the outer margin; two orange spots near the anal angle. Anterior wing with the base of the costal margin white, and a submarginal line of orange towards the anal angle.

Female lighter brown, with a large spot of orange on the centre of the anterior wing, and one of the same size touching the outer margin of the posterior wing. Underside from the base to the middle, light yellow; beyond it brown, crossed, as in the male, by two bands of white. The outer margin of both wings orange towards the anal angle.

Expan. ♂ $1\frac{9}{20}$, ♀ $1\frac{7}{20}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

EURYGONA MAZACA. 77, 78.

UPPERSIDE. Male brick-red, the margins broadly black except the inner margin of the anterior wing and part of the outer margin of the posterior wing.

UNDERSIDE grey-brown. Both wings crossed near the middle by a linear band of black. Anterior wing with a black line and white spot at the anal angle. Posterior wing with a submarginal row of lunular white spots bordered with black, one spot near the middle broadly black above. The outer margin towards the anal angle orange.

Expan. $1\frac{3}{10}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

EURYGONA GYDA. 79.

UPPERSIDE rufous-yellow. Anterior wing with the costal and outer margins broadly brown, and a small black spot at the end of the cell. Posterior wing darker on the outer margin.

UNDERSIDE of a uniform silvery white.

Expan. $1\frac{9}{10}$ in. Hab. Brazil.

In the Collection of W. C. Hewitson.

EURYGONA DORINA. 80, 81.

UPPERSIDE. Male carmine. The margins black. A small black spot common to the base of both wings. Anterior wing with the costal and outer margins broadly black. Posterior wing with the outer margin black.

UNDERSIDE rufous. Both wings crossed beyond the middle by a darker rufous band. Posterior wing with a small black and white spot (black above, white below,) near the middle of the outer margin.

Expan. $1\frac{11}{20}$ in. Hab. Amazon.

In the Collections of W. W. Saunders and W. C. Hewitson.

ERYCINIDÆ.
EURYGONA IX



W. C. Hewitt in *Sci. et. nat.*, April, 15th, 1870

M. & N. Hanhart sculp

82, 83 EURYGONA ERYTHRAEA
84 EURYGONA EFFUSA 91 EURYGONA BETTINA
86 87 EURYGONA CLORATA 88 EURYGONA LARINA
89 90 EURYGONA PRAECLARA 91 92 EURYGONA ATHELIA

ERYCINIDÆ.

EURYGONA. IX.

EURYGONA ERYTHRAEA. 82, 83.

Eurygona Erythraea. Bates. *Cat. of Erycinidæ*, p. 375. *Linn. Soc. Journal. Zoology*, Vol. IX.

UPPERSIDE. Male, scarlet. Anterior wing with the costal and outer margins dark brown. Posterior wing dark brown, with a large scarlet spot from the middle to the outer margin.

UNDERSIDE grey-brown from the base to the middle; dark brown from the middle to near the outer margin, traversed by three bands of white. Posterior wing with the submarginal white band curved outwards at the middle: a submarginal line of orange at the anal angle.

Exp. $1\frac{7}{10}$ inch. Hab. Ecuador. (Buckley.)

In the Collections of W. W. Saunders and W. C. Hewitson.

EURYGONA EFFIMA. 84.

Eurygona Effima, Hewitson. *Equat. Lep.* p. 46.

UPPERSIDE. Male, dark brown, with the anal angle of the posterior wing broadly white.

UNDERSIDE pale brown: the outer margins brown. Both wings crossed by three bands of brown. Anterior wing with a submarginal band of brown marked at its middle by a black spot. Posterior wing with a submarginal series of black spots bordered below with white: the third spot from the apex larger than the rest.

Exp. $1\frac{2}{10}$ inch. Hab. Ecuador. (Villano, Buckley.)

In the Collection of W. C. Hewitson.

Does not differ from *E. Euryone*, except in the white at the anal angle. On the upperside it has the appearance of a small specimen of *E. Phedica*.

EURYGONA BETTINA. 85.

Eurygona Bettina, Hewitson. *Equat. Lep.* p. 46.

UPPERSIDE. Male, dark brown, paler towards the apex of the anterior wing.

UNDERSIDE glossy golden white. Posterior wing with a single minute black spot at the middle of the outer margin.

Exp. $1\frac{3}{10}$ inch. Hab. Ecuador. (Angus, Buckley.)

In the Collection of W. C. Hewitson.

Altogether like *E. Eusepus* of Hewitson, except that it is without the band of the underside, and has a golden tint instead of the silvery white of *Eusepus*.

Mr. Belt has sent me this species from Nicaragua.

EURYGONA ONORATA. 86, 87.

Eurygona Onorata, Hewitson. *Equat. Lep.* p. 47.

UPPERSIDE. Male, rufous. Anterior wing with the centre orange: the costal margin a quadrate spot at the end of the cell, which is darker than the rest, the apex

D D

and outer margin dark brown. Posterior wing with the outer margin from the apex to the middle brown.

UNDERSIDE. Anterior wing grey-brown, with three central white spots. Posterior wing white, with the base, a band from the costal margin to the middle, a curved line below this, and the apex brown: a black spot bordered with white near the middle of the outer margin.

Exp. $1\frac{3}{10}$ inch. Hab. Ecuador. (Sarayaco, Buckley.)

EURYGONA LABIENA. 88.

Eurygona Labiena, Hewitson. *Ent. Mon. Mag.* p. 226, Vol. VI., 1870.

UPPERSIDE. Male, orange. Anterior wing with the costal and outer margins and apex broadly dark brown. Posterior wing with the costal margin, which is broad, and the outer margin, which is narrow, dark brown; the inner margin paler brown.

UNDERSIDE orange-yellow. Posterior wing with a submarginal series of minute black spots.

Female like the male, except that it is yellow instead of orange.

Exp. $1\frac{1}{20}$ inch. Hab. Nicaragua. (Chontales, Belt.)

In the Collection of W. C. Hewitson.

EURYGONA PRÆCLARA. 89, 90.

Eurygona Præclara, Hewitson. *Equat. Lep.* p. 48.

UPPERSIDE. Male, orange. Anterior wing with the costal margin and apex (which is broad) dark brown. Posterior wing with the apex brown.

UNDERSIDE. Both wings crossed beyond the middle by a series of pale grey spots, and by a submarginal series of minute brown spots. Anterior wing crossed at the middle by a band of four rufous spots. Posterior wing with a spot near the base, three spots at the middle, and three spots near the anal angle, all rufous.

Exp. $1\frac{7}{10}$ inch. Hab. Ecuador. (Sarayaco, Buckley.)

In the Collection of W. C. Hewitson.

Very near to *E. Opalina*, from which it differs in having the apex more pointed and broadly bordered with brown. I have described it as seen with its head from the light. When reversed it is one of the most glorious things in this part of the Creation, surpassing the *Morphos*.

EURYGONA ATHENA. 91, 92.

Eurygona Athena, Hewitson. *Equat. Lep.* p. 46.

UPPERSIDE. Female, dark rufous-brown: the outer half of the posterior wing (which is rounded at the outer margin) orange.

UNDERSIDE rufous-grey. Both wings crossed at the middle by a rufous-orange band, paler on the posterior wing and bordered on both sides with brown: both wings crossed beyond the middle by a less-defined rufous band, which ceases at the middle of the posterior wing. Anterior wing darker towards the outer margin. Posterior wing with its outer half orange-yellow: the outer margin orange: a submarginal band of eight white spots, with a rufous border on both sides, except the middle spot (which is crowned by a black spot) and the three spots nearest the anal angle (which are bordered above and below with black).

Exp. $1\frac{6}{10}$ inch. Hab. Ecuador. (St. Ines, Buckley.)

In the Collection of W. C. Hewitson.

ERYCINIDÆ.

EURYGONA M.



W. H. Edwards, London, July 1st 1872.

M. & N. Harhart amp

93.94. EURYGONA EURYSTHENES

95.96.97. EURYGONA EUCERUS.

101.102. EURYGONA EUCRATES.

98.99.100. EURYGONA ARGENTEA

103.104. EURYGONA EURYMACHUS

ERYCINIDÆ.

EURYGONA.

EURYGONA EURYSTHENES. 93, 94.

UPPERSIDE. Male, black. Both wings bordered at the outer margin with brilliant lustrous blue, very broad on the anterior wing.

UNDERSIDE lilac-rufous. Anterior wing crossed at and beyond the middle and at the outer margin by straight rufous bands. Posterior wing crossed at the middle by one band of the same colour followed near the outer margin by one large lustrous blue spot, bordered with orange except at its base, which is white: a submarginal series of black spots and above them hastate orange spots bordered with brown: the outer margin rufous.

This species and *E. Eurymachus* are totally black when their heads turned to the light. When reversed the brilliant blue makes its appearance.

Exp. $1\frac{7}{10}$ inch. Hab. Ecuador. (Buckley.)

In the Collection of W. C. Hewitson.

EURYGONA EUCERUS. 95, 96, 97.

UPPERSIDE. Male, dark brown with a large spot from the base to the middle rufous at its base, orange beyond. Posterior wing rufous with a large orange spot near the costal margin which is dark brown.

UNDERSIDE. Anterior wing pale-brown rufous near the middle. Posterior wing lilac-white clouded with brown at the base. Both wings crossed at the middle by a broken band of red-brown spots, beyond the middle by some brown spots, and near the outer margin by a series of black spots, bordered above with white on the anterior wing; the central spot of the posterior wing largest.

Exp. $1\frac{5}{10}$ inch. Hab. Brazil. (Rogers.)

In the Collections of W. W. Saunders and W. C. Hewitson.

I have figured 97 as a variety of this species. It does not differ on the upperside.

EURYGONA ARGENTEA. 98, 99, 100.

Eurygona Argentea, Hewitson. *Trans. Ent. Soc.* p. 166, 1871.

UPPERSIDE. Male, dark brown. Anterior wing rufous below the median nervure, from the base towards the middle of the wing, where it ends in a more distinct round spot. Posterior wing with a longitudinal rufous-orange band from the base to the outer margin.

UNDERSIDE silvery white. Anterior wing with four transverse bands and the outer margin brown. Posterior wing crossed by six brown bands, all tending

towards the anal angle: two from near the base, a third from the costal margin united to the fourth which runs near the inner margin, the other two near the outer margin, the outer one marked by a small black spot; the outer margin black, marked by a large orange spot.

Female like the male except that there is on the upperside a large orange-yellow spot on the anterior wing, a small undefined rufous spot at the middle of the posterior wing, and a small spot of the same colour on the outer margin near the anal angle.

The spot on the posterior wing is so rubbed off that I have had to guess its form and extent.

Exp. $1\frac{3}{10}$ inch. Hab. Nicaragua. (Chontales.)

In the Collection of Thomas Belt.

EURYGONA EUCRATES. 101, 102.

UPPERSIDE. Male, red-brown. Anterior wing with the costal and outer margins and apex broadly dark brown. Posterior wing crossed longitudinally between the median nervures by a band of dark brown.

UNDERSIDE ochreous-brown. Both wings with the base dark brown, both crossed beyond the middle by a linear brown band bordered outwardly near the costal margin by a large brown spot. Posterior wing with the inner margin below its middle to the anal angle broadly white. A submarginal series of white spots crowned with black, the third spot from the apex large and triangular.

Exp. $1\frac{7}{10}$ inch. Hab. Ecuador. (Buckley.)

In the Collection of W. C. Hewitson.

EURYGONA EURYMACHUS. 103, 104.

UPPERSIDE. Male, black. Anterior wing with a large spot of lustrous blue near the anal angle, posterior wing with a similar spot at the apex.

UNDERSIDE brown. Anterior wing crossed at the middle by a distinct band of dark red-brown, beyond the middle by an undefined broad band of brown and by a submarginal band of brown: the outer margin rufous. Posterior wing crossed at the middle by a rufous band followed near the outer margin by a large dark blue spot bordered with orange its base white and a series of small black triangular spots with above them hastate orange spots broadly bordered with brown and below them white: the outer margin rufous.

Exp. $1\frac{6}{10}$ inch. Hab. Ecuador. (Buckley.)

In the Collection of W. C. Hewitson.



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